Swedish University of Agricultural Sciences
Faculty of Forest Sciences

Department of Forest Products, Uppsala

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Bedömning av Europeiska massakunders värdeuppfattningar kring massaproducenters erbjudanden

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Abstract

Pulp suppliers are acting in a complex and dynamic environment. Branding and differentiation have therefore grown in importance for attracting pulp customer firms. Knowledge about pulp customer firms' perceptions' of value has become a key issue so that suppliers can develop valuable offerings.

Accordingly, this study empirically assessed eight European pulp customer firms' perceptions' of value and brand of pulp suppliers. The perceptions of value between the eight customers have been compared with one supplier's. These assessments were made using a multiple methodology approach, which comprised of qualitative interviews and a small scale focus group.

The theoretical approach for this assessment is comprised of multiple theoretical models, which combined constitutes the theoretical framework with a base in relationship marketing and in particular models about customer perceptions' of value.

The findings of the study comprised of eight emerging perceptions of value and varied perceptions of suppliers' brands. The two prioritised values were quality and relative price i.e. price in relation to other aspects of the offering and price in relation to other suppliers' price. Furthermore, there were equal perceptions of value between the customers and the supplier. Customer firms' considered pulp suppliers to be competent. Through assessing the findings with the theoretical framework the core value parameters of today's business, possibilities for value adding and areas for future competitive positioning were created.

Given price will remain an issue, and all suppliers are competent, one key challenge for suppliers will be how to enhance customer value while maintaining a low relative price.

Keywords: *Customer perception of value, Branding, Pulp producers, Pulp customer firms*

Sammanfattning

Massaproducenter verkar på en komplex och dynamisk marknad. Varumärke och differentiering har vuxit i betydelse för att attrahera kunder. Kunskap om massakunders uppfattningar om kundvärde är viktigt för att kunna tillgodose kunders önskemål och för att kunna utveckla konkurrenskraftiga erbjudanden.

Den här studien har empiriskt utforskat åtta europeiska massakunders uppfattningar om kundvärde och varumärke hos massaproducenter. Kundernas uppfattningar om värde har därefter jämförts med en massaproducents uppfattning. Studien har genomförts med en kvalitativ multipel metodisk approach bestående av intervjuer och en fokusgrupp.

Den teoretiska ansatsen för studien har tagits i tre teoretiska modeller vilka tillsammans utgör studiens teoretiska ramverk med en grund i relationship marketing och särskilt i modeller om kunders uppfattningar om värde.

Resultatet om uppfattningen kring kundvärde utmynnade i åtta värdeparametrar och varierande uppfattningar kring varumärken. De två mest prioriterade värdena var kvalitet och relativt pris. Vidare, påvisade resultaten liknande uppfattningar av värde mellan de intervjuade kunderna och massaproducenten. Kunderna ansåg att deras leverantörer är kompetenta.

Förutsatt att pris kommer fortsätta att vara en viktig värdeparamter och att alla leverantörer fortsatt är kompetenta så är den huvudsakliga utmaningen att kunna erbjuda ytterligare värden men att bibehålla ett lågt relativt pris.

***Nyckelord**: Kunders uppfattning av värde, varumärke, massaproducenter, massakonsumenter*

Preface

This study concludes my five years as a student at the Swedish University of Agricultural Sciences and as a result I graduate with a Master of Science in Forestry.

First of all I want to thank the respondents for participating and taking the time to share your thoughts and views with me.

I also want to express my greatest compliments to Marcus Hellberg and Jonas Larsson at Södra Cell International for the idea to conduct this study, as well as giving me the opportunity to collaborate with you throughout this thesis. Your support and guidance have been valuable to me.

Finally I want to express my greatest appreciation to my supervisor Denise McCluskey, Department of Forest Products at the Swedish University of Agricultural Sciences, for all the support and helpful comments during all phases of the study. Your untiring positive spirit has been truly needed when I struggled with theoretical models and structure of the thesis.

Thank you all!

Jonas Johansson
Uppsala, May 2014

Content

Introduction

What is a brand? A logo or a name used for advertising? A jingle in the TV-commercials? What is a brand to you? If you show a couple of people a Coca-Cola logo, one of world's most valuable brands (Forbes 2014), one of them might think about a sweet sparkling drink, one about a qualitative drink and another one about a drink that contributes to fatness. Basically, the customers' perception of a brand can vary from one person to another and is partly reflected by a person's associations, past experiences and feelings (Kotler & Pfoertsch 2006).

According to Kotler & Pfoertsch (2006) one of the most common misunderstandings about brands is that it is simply a name or logo and they define a brand as "the totality of perceptions…". Other literature suggest that a brand is also about differentiating a product or service from the competitors (Kotler, 2000; Brassington & Pettit, 2013). Differentiation along with cost advantage are the two drivers of competitive advantage (Grant, 2010). According to Khalifa (2004) the marketing concept is an important part of a company's competitive advantage and customer value is a growing part of the marketing concept. With these definitions brand becomes a much larger concept than just a name or logo. A brand can consist of several features, of which some are attributes, benefits and values (Kotler, 2000). Furthermore, Brassington & Pettit (2013) suggests that brands are more than just physical attributes and consist of a variety of values that are supposed to match the customer's values.

Branding and brand management have been used in a business to consumer (B2C) context for several decades and has just in recent years received attention by researchers and practitioners in a business to business (B2B) context (Kotler & Pfoertsch, 2006). The fact that globalisation makes information available via internet makes branding even more important and helps the purchaser to navigate among all accessible options (Kotler & Pfoertsch, 2006). According to Kotler & Pfoertsch (2006) the brand functions and brand relevance in a B2B context results in that "brands differentiate, reduce risk and complexity, and compensate price pressures by offering additional value".

The forest products industries operate in a complex environment, with high competition both from foreign companies as well as from substitute products where one way to reduce the impacts of these factors for each firm and the business as a whole, is to work actively with branding (Tokarczyk & Hansen, 2006). The pulp producers in Europe have more or less the same base of production conditions and therefore it can be difficult to differentiate by product, meaning that the companies have to differentiate by other features within a brand (Juslin & Hansen, 2002).

To use branding as a tool in the forestry sector is not a new phenomenon and companies like Weyerhaeuser launched their first real brand, 4-square, in the 1920s (Tokarczyk & Hansen, 2006). The paper sector is a few steps in front of the rest of the forest sector when it comes to branding and there are two likely reasons why: (1) the paper sector's product is more B2C orientated since the products are customer orientated and (2) the paper sector is more capital intensive compared to the rest of the sector which has created a hotbed for branding as a way of reaching competitive advantage (op.cit).

There is a lot of research done on marketing, branding and customer perception of value e.g. (Kotler & Armstrong, 2010; Ravald & Grönroos, 1996; Kotler & Pfoertsch, 2006; Khalifa, 2004). There is less research about these areas applied to the forest sector even though Juslin & Hansen (2002) notes that it is getting increasingly common in the forest industry to use branding in order to differentiate products from competitors as well as there is a trend towards gradually replacing bulk production with value added production. There is some early research from 1980s by Sinclair & Seward (1988) that looked on the effectiveness of branding strategies of commodity products. There is also research done by Hugosson & McCluskey (2009) about marketing competencies of Swedish sawmill industries that found service aspects as an important part of customer perception of value. Larsson's (2009) master thesis was about customer perception of value of Swedish sawmill firms' work with corporate social responsibility. There is also some research about customers perception of value in forest harvesting operations (Eriksson & Lindroos, 2011). However, there is in general a lack of research about customer perception of value further down the value chain in the forest industries in general and a knowledge gap in the pulp industry in particular.

This thesis is written in cooperation with Södra Cell International AB which is an affiliate to Södra Cell which in turn is a division within Södra, a private forest owners association in the south of Sweden. Södra Cell produces 1.6 million ton of pulp every year and is one of the world's largest market pulp producers (Anon, 2013b). Södra evaluates their brand strategy and for Södra Cell International it is vital to have knowledge about how their brand is perceived by their customers. One of the reasons why it is particular interesting for Södra Cell International is because they produce a product which is very similar to their competitors' product which is difficult to differentiate. Therefore, this thesis about the European pulp customer perception of value is valuable for Södra.

Keeping in mind Kotler & Pfoertsch's (2006) definition of branding as the totality of perceptions and Brassington & Pettit's (2013) statement that a brand is supposed to match customer value, this thesis' overall theoretical framework will be based upon customer perception of value.

Purpose, research questions and delimitations

In this study of Södra's brand image, the research purpose is to assess Södra Cell's customers' perceptions of the values that pulp suppliers provide their businesses today as well as anticipated future needs.

This purpose will be achieved by answering three research questions:

1. What are pulp customer firms' perceptions of value and brand?
2. Are there any perceived values that have changed over time and what are the customer firms' thoughts about the future – future dynamics?
3. Comparing customers' and Södra Cell's perceptions of value

The delimitations of this study are:

i) Pulp customer firms that are located in Europe
ii) NBSK(Northern Bleached Softwood Kraft) based offerings
iii) A comparison of Södra cell's performance compared with three other pulp suppliers

Theory

This chapter begins with a brief section about the development of relationship marketing followed by a section about customers' perceptions' of value in the fields of; marketing, production and purchasing and ends with the multiple theoretical models that comprise the theoretical framework for this study.

Relationship marketing and business to business

The traditional view of marketing often reflects a seller orientated view of the transaction between the seller and buyer and does not consider the emotional elements that occur when transactions are executed repeatedly (Brassington & Pettit, 2013). Another view is a relationship focused approach that considers the interaction between the seller and the buyer which is called relationship marketing (Ibid). The fundamental idea with relationship marketing is that the relationship between a supplier and a customer add value beyond the value from a product or service (Grönroos, 2004). The concept of relationship marketing was created in the beginning of the 1980s and was introduced in a B2B context in the middle of the 1980s (Grönroos, 2004; Berry, 1995). The general idea that relationship is an essential part of marketing had been found in the Nordic school of marketing before the 1980s, but the specific term relationship marketing was not used (Sheth & Parvatiyar, 2000). Relationship marketing is thus a relatively new paradigm in the marketing field and it is about maintaining relationships in order to create customer loyalty so all involved actors are profitable (Ravald & Grönroos, 1996). The research in relationship marketing is growing and building a larger body, but is still not in any sense complete and continues to develop (Sheth & Parvatiyar, 2000). Relationship marketing can be divided into three processes; value, dialogue and interaction (Grönroos, 2004). Thus, one important element of the relationship marketing is value and by creating customer value companies gain an opportunity to differentiate themselves (Grönroos, 2004). Differentiation creates an opportunity to get competitive advantage against competitors (Woodruff, 1997; Grant, 2010; Ravald & Grönroos, 1996).

One field within relationship marketing which is developing is customer perceptions' of value and this is just as important in a B2B context as in a B2C context. Still, there are several fundamental differences between B2B and B2C contexts. Firstly, in a B2B context there are usually fewer customers, but larger volumes per customer. Secondly, there is a difference in the industrial demand between B2B and B2C. Thirdly, B2B requires less adaption to differences in national demand and can therefore have a more uniformed international structure. (Kotler & Pfoertsch, 2006)

Customer perception of value

The research about customer perceptions' of value and customer value is comprehensive and there are several models that have been developed over time (Zeithaml, 1988; Sanchez-Fernandez & Iniesta-Bonillo, 2007; Grönroos, 1997; Khalifa, 2004). Even though there is a great amount of research done in the field of customers' perceptions' of value there is really no consensus about the complexity and meaning regarding the definition. One review paper of the field means that there are two major divisions, uni-dimensional and multi-dimensional (Sanchez-Fernandez & Iniesta-Bonillo, 2007). The researchers in the uni-dimensional division mean that the perception of value is more or less the trade-off between the customers' benefits and sacrifices (op.cit). Other researchers mean that this is a too narrow view on perception of value (op.cit). The scholars preferring the multi-dimensional division mean that more aspects than benefits and sacrifices need to be considered when evaluating customer perception of value (op.cit). However, Sanchez-Fernandez & Iniesta-Bonillo (2007) reach several conclusions in their review, including that “the concept of perceived value implies an interaction between a subject and an object” and “ the value is preferential, perceptual and cognitive-affective in nature”.

In a study done by Zeithaml (1988), the following four customer definitions of value were identified: i) low price; ii) whatever I want in a product; iii) value is what I get for the price I pay and; iv) value is the quality I get for the price I pay. Zeithaml (1988) summarise the four definitions in this sentence: “perceived value is the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given”.

If one looks outside the marketing field and into the production economy field, Olhager (2013) describe a common definition of customer value: is the quota of the product quality multiplied with flexibility and delivery capability, divided with price, see equation below. The apostrophe mark in the end of each parameter states that the meaning of each parameter is individual, which for example means that quality differs from one person to another person (op.cit).

$$Customer\ value = \frac{Quality' * Flexibility' * Delivery\ capability'}{Price'}$$

Quality according to Garvin (1984) can be categorised into the following eight dimensions:

- *Performance,* the primary characteristics of a product such as attributes
- *Features*, characteristics that are added above the primary ones
- *Reliability,* how likely it is that a product will fail within a specified time period
- *Conformance,* how well the product or service meets the requirements from the customer
- *Durability,* the probability that the product breaks
- *Serviceability,* how easy it is to repair and maintain a product, also includes the behaviour of the service person
- *Aesthetics,* characteristics of a product that appeal individual preferences
- *Perceived quality*, other kinds of quality that are not included in the above mentioned dimensions

For a customer firm to purchase the offer of supplier X instead of supplier Y, there needs to be a higher incentive for the customer to buy from X than from Y (Anderson & Narus, 1998).
Ulaga (2003) interviewed purchasing managers in a study about value creation within manufacturer-supplier relationships and found eight main value drivers with different sub-dimensions:

- *Delivery,* on-time delivery, delivery flexibility, accuracy of delivery
- *Time-to-market,* design tasks, prototype development, product testing and validation
- *Direct product costs (price),* annual price decreases, price above, below, at competition
- *Supplier know-how,* knowledge of supplier market, improvement of existing products, development of new products
- *Personal interaction*, communication, problem solving, mutual goals
- *Process costs*, inventory management, order-handling, incoming inspections, manufacturing
- *Product quality,* product performance, product reliability, product consistency

- *Service support*, product-related serviced, customer information, outsourcing of activities

A review by Khalifa (2004) states that the literature regarding customer value are fragmented and there is no theory or model that considers a wider range of perspectives regarding customer value. He therefore created the following three complementary models: value exchange model, value build up model and value dynamics model (op.cit). None of these models alone give a fair and overall view over customer perception of value, but together they create a configured model which gives a more a comprehensive view (op.cit). These models will be described in the following chapters and comprise the overall framework for the study. The models are complemented with other theories or models to enhance the relevance of the models in an attempt to make them more adaptable to the field of pulp business. Through complementing the components of the models with other theories and models a number of value indicators, described in italics in the following chapters, are identified. These provide the basis for the framework for analysis of this study.

Value exchange model

Many definitions of customer value somehow describe a trade-off between a customers' benefits and sacrifices (Khalifa, 2004). With increased commodisation where product quality increasingly being seen as a hygiene factor, product differentiation is getting more difficult and the importance of other values increases (Ulaga, 2003). Khalifa's (2004) *value exchange model* illustrates components in the trade-off between different benefits and sacrifices and will be described in this chapter.

In the value chain from supplier to customer there are different kinds of sacrifices and benefits. The supplier has a cost for production, components etc. and needs a margin above that to be profitable which is equal to the price a customer pays for a product or service (Khalifa, 2004). *Price* can according to Mohr (2001) be discussed around three C:s of pricing: cost, competition and customers and can be illustrated in the shape of a three-legged stool. The stool is symbolising that with just one or two legs the stool becomes unstable, but there needs to be a balance between all the three legs. The forest industries often have high investments costs (KSLA, 2014) and the competitors are getting fewer but greater (Skogsindustrierna, 2014) and where Södra's customer segments have changed (Anon, 2014b).

To get the total customer cost the customer also have other categories of costs besides the *price* (Lundmark, 2010; Khalifa, 2004). Costs beside the *price* is named *transaction costs* and can for example consist of gathering information, evaluation and negotiations (Lundmark, 2010). Kreps (1990) means that *transaction costs* can be divided into two types, ex ante or ex poste which means before and after transactions occur. Cost of the search for suppliers or products can be categorised as an ex ante cost and evaluation after the transaction as ex poste. The total customer cost can thereby be summarised as the *price* paid for a product or service added with the *transaction cost* (Khalifa, 2004).

In purchasing literature the term total cost of ownership (TCO) describes the costs that are added to the price and includes costs like research and inspection (Ellram, 1995) and is the total amount of money that a customer spends on a product in terms of owning and using the product (Mohr, 2001). There is a value based TCO approach that transforms qualitative values into quantitative values which makes it easier to evaluate the supplier (Ellram, 1995). If there are customer firms using TCO, they may have better systems to evaluate the values offered from different suppliers. *Price* is an influential factor in both the value exchange model and in Olhagers (2013) definition of customer value and is also described by Ulaga (2003) as a value driver.

As already mentioned the definitions vary, but several definitions (Khalifa, 2004; Grönroos, 1997) divides value into at least two categories. In Khalifas (2004) value exchange model the total customer value is divided into utility values and psychic values. Grönroos (1997) has described customer perception of value by several equations where one divide customer perception of value into core value increased or reduced by added values, see equation below. The utility values can be compatible with core values and psychic values with added values.

$$\textit{Customer Perceived Value (CPV)} = Core\ value\ \pm added\ value$$

According to Olhager (2013) *quality* is one influential factor in customer value and Garvin (1984) pointed out several dimensions of *quality* where *performance* – such as attributes can be interpreted as utility values. Ulaga (2003) also mentions *quality* as a value driver. Another dimension was *features* – characteristics of a product above those in the performance dimension (Garvin 1984). These can be seen as added values which can be seen as utility values. Furthermore Olhager (2013) have *flexibility* and *delivery* as parameters in his equation of customer perception of value. *Delivery* is also something that Ulaga (2003) mentions as a value driver.

Khalifa (2004) value exchange model, see Figure 1, are comprised of the cost and the margin of the supplier which is the price the customer pays for a product. In addition to the price the customer has different kinds of transaction costs that combined represents the total customer cost. If the utility values added with the psychic values gives a higher value than the total customer cost a net customer value occurs. Accordingly, the total value to the customer is utility values added with psychic values or the total customer cost added with the net customer value, which is illustrated in Figure 1.

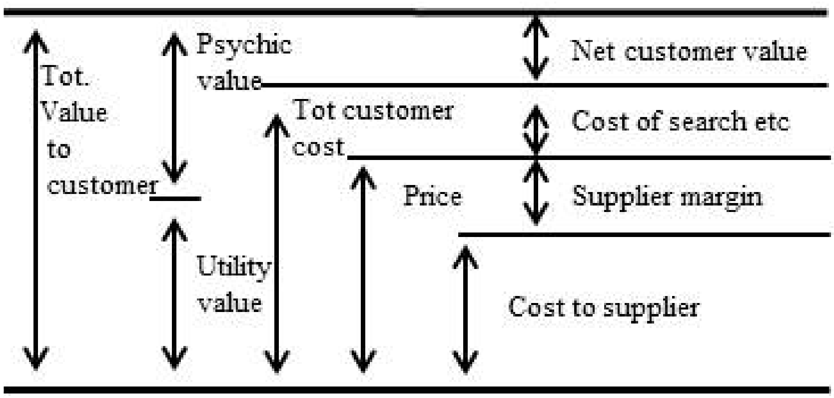

Figure 1. The value exchange model and its components. The figure illustrates that total customer value is equal with physic value added with utility value. The model is created by Khalifa (2004).

Value build up model

In order to add more dimensions into the concept customer perception of value, Khalifa (2004) also created the value build up model which will be described in this chapter. The value build up model, in opposite to the value exchange model consider factors like feelings and relationships. In the above chapter an equation from Grönroos (1997) described customer perception of value, but he also created another equation in an attempt like Khalifa, to describe the concept in a comprehensive view. The second equation, partly describes components from the value exchange model, but in this equation is relationship costs included, see equation below.

$$\textit{Customer Perceived Value (CPV)} = \frac{Core\ solution + additional\ services}{Price + relationship\ costs}$$

According to Grönroos (2004) customer perception of value in a relationship is developing over time and the second equation describes how the core solution in general is paid on delivery, relationship cost develops over time and the additional services are evaluated by time.

Relationship is one of four factors included in the value build up model and whether the view of the relationship is more like an interaction or a transaction (Khalifa, 2004). One dimension from Garvin (1984) dimensions of quality was *serviceability* – how easy it is to maintain and repair a product which also includes the behaviour of service personal. Even though pulp isn't a product that needs to be repaired or maintained different kinds of pulp works different in the customers machines why they sometimes have service personal from the suppliers to assist.

Whether the supplier-buyer relationship is seen as a relation with support of service personal or if it's just a transaction with an exchange of money and goods is relevant. Ulaga (2003) describes *support* as a value driver and often occurs between people and therefore can affect the *relationship*. *Support* is something that, in general, is much highlighted on the pulp producers' websites (Anon 2013a; Anon 2014c; Anon 2014a) although they name their support offerings different. This indicates that *support* probably is an important part of customer firms' perceptions' of value.

Another dimension is about the view of the customer and whether it is more as a customer or as a person and is pretty similar to the view of the *relationship* (Khalifa, 2004). Ulaga (2003) eight dimensions of value drivers included *personal interaction* which in turn included the value dimension communication. Wood (2010) examined interpersonal relationship and found four dimensions: *trust, commitment, investment* and comfort with relational dialectics as successful key dimensions within interpersonal communication. Interpersonal communication could be seen as communication between employees in the producer and customer firms.

The third and fourth dimension are pretty similar and concerns to what extent the customer needs are more towards utility values or more against psychic values and if the benefits are tangible or intangible (Khalifa, 2004). Examples on how to categorise these values are described in the value exchange model.

All four dimensions; i) the view of the relationship; ii) the view of the customer; iii) customer benefits and; iv) customer needs, accumulate customer value (Khalifa, 2004). There are four clear forms of value from low to high, which are described in the value build up model: functionality, solution, experience and meaning, see Figure 2. (Khalifa, 2004). The model indicates how the value dimensions are gradually moving from transaction to interaction, from tangible to intangible, from consumer to person and from utility needs to psychic needs (op.cit).

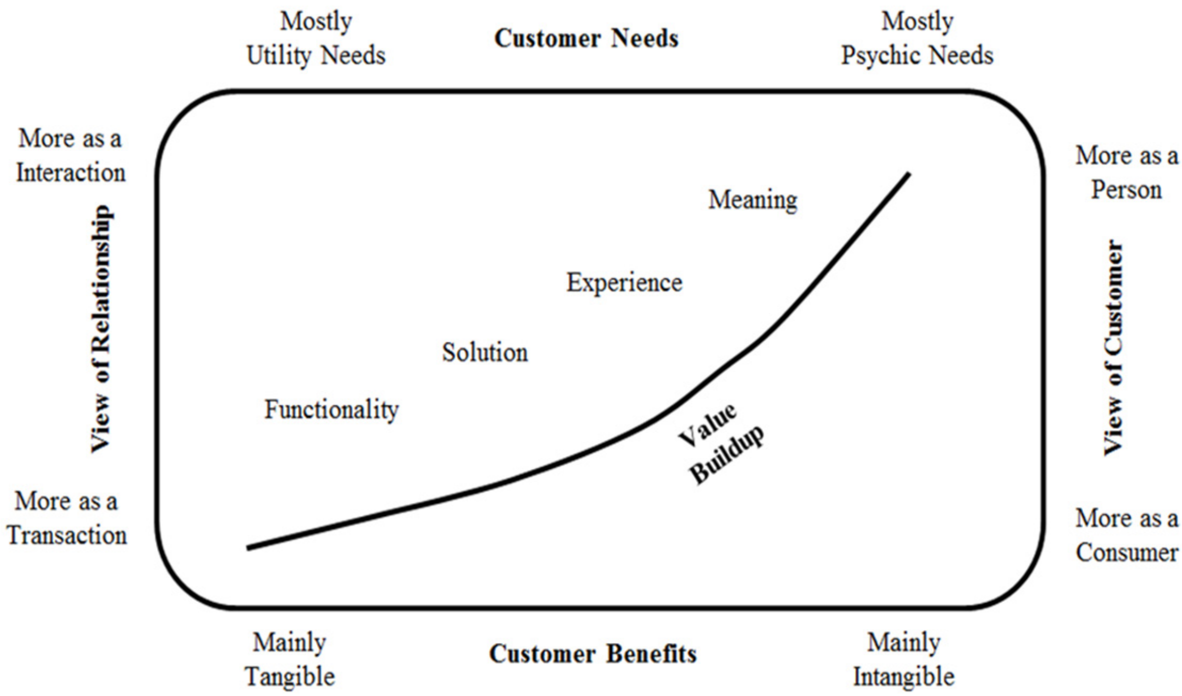

Figure 2. Value build up model which describes that total customer value is influenced by following factors: View of Customer, View of Relationship, Customer Benefits and Customer Needs. The figure also describes four clear forms of value and that is functionality, solution, experience and meaning. The model is created by Khalifa (2004).

Value dynamics model

The value dynamics model comprise the dynamics of value (Khalifa, 2004). Grönroos (2004) has, as mentioned, described customer perception of value out of different equations where equations (1) and (3) both have a plus and minus which indicates that added value and relationship value either can increase or decrease customer perception of value.

$$\textit{Customer Perceived Value (CPV)} = Core\ value\ \pm added\ value$$

$$\textit{Customer Perceived Value (CPV)} = Episode\ value\ \pm relationship\ value$$

Khalifa (2004) describes that some values can decrease or increase value and he names them value magnifiers and value destroyers. The value magnifiers and value destroyers can be compared with Grönroos (1997) added values which can increase or reduce the customers perception of value.

The forestry in general is operating under dynamic conditions where weather, storms and other factors are affecting the supply of pulpwood to the industries. The *price* of NBSK-pulp is fluctuating (FOEX, 2014). The structure of the Swedish pulp industries have changed during the last three decades where the number of industries have decreased by 44 % at the same time as the capacity have increased by 26 % and where the export in ton is pretty stable although the export value have more than doubled (Skogsindustrierna, 2014). This indicates that *technical* progresses have been made in the production industries at the same time as the *relationships* between supplier- buyers have changed. The later, *relationship*, is also something that probably is affected by time, either it's strengthen or weakened. During the spring of 2014, it has been announced investments in pulp related production in the Nordic countries corresponding to 15 billion SEK (DanskeBank, 2014) also indicating the dynamics of the business.

In an empirical study Patterson & Spreng (1997) tested the relationship between perceived value, satisfaction and repurchase and found six dimensions of which customers used to evaluate the supplier, of which all six were correlated to perceived value. The six dimensions was *technical,* methodology, *support, relationship*, global network and a problem identification process (op.cit). The study was conducted on consultant firms in a B2B- context and considers the B2B-context some values may occur also in this study.

The value dynamic model, Figure 3, is a description of total perceived value and reflects how companies' offerings are evaluated by a customer. This model represents the gross customer value in the value exchange model. This model divides utility and psychic value into unexpected, explicitly expected and implicitly expected values (Khalifa, 2004). It also illustrates that some values can both increase and decrease the total perceived value (op.cit)

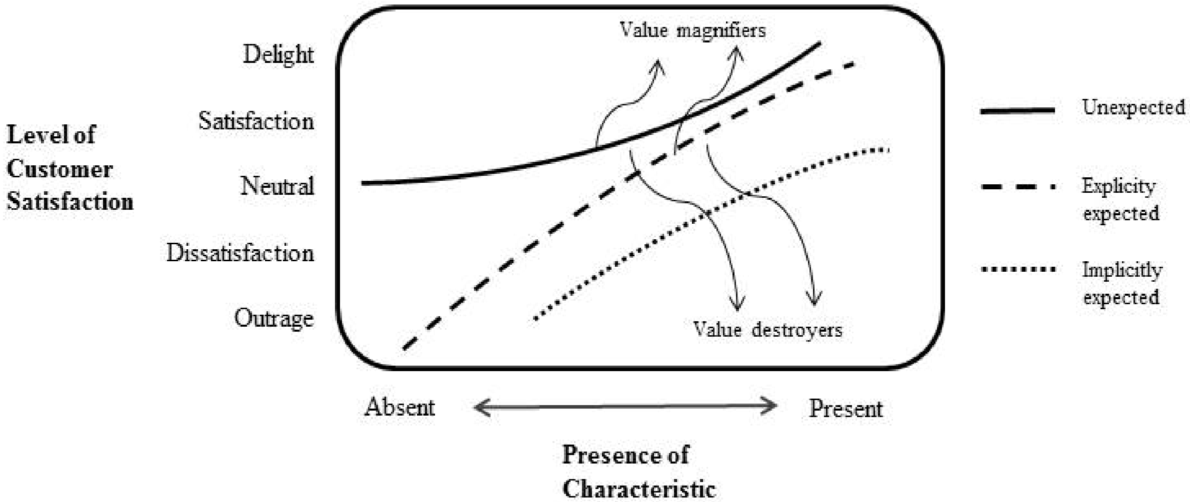

Figure 3. Illustrates the dynamics of Values, how value can increase or reduce through the value magnifiers and value destroyers. The model is created by Khalifa (2004).

Theoretical framework and related reflections

Theoretical framework

If putting the value exchange model, the value build up model and the value dynamics model together they create a configured model (Khalifa, 2004), see Figure 4, and is comprising the theoretical framework for this study, thus it gives a comprehensive view of customers' perceptions'' of value. Each one of the three models is interesting since they give different dimensions to customer value and needs to be considered when assessing customer perceptions' of value . The configured model considers the complexity within the concept of perception of value and is therefore used in this thesis. The values in the models range from distinct measurable values like price to more diffuse and unmeasurable values like relationships and individual feelings. Multiple theoretical models are used since it's not a consensus regarding definitions and meanings of customer perception of value, but the three selected models combined give a multi-dimensional perspective. Also there are lack of studies in the field of pulp customers perceptions of value applied in the pulp business so there is difficult, prior the interviews, asses what values that will arise and therefore the researcher have tried to find possible value indicators within other fields of customer value divided into the multiple theoretical model in order to answer the purpose of this study.

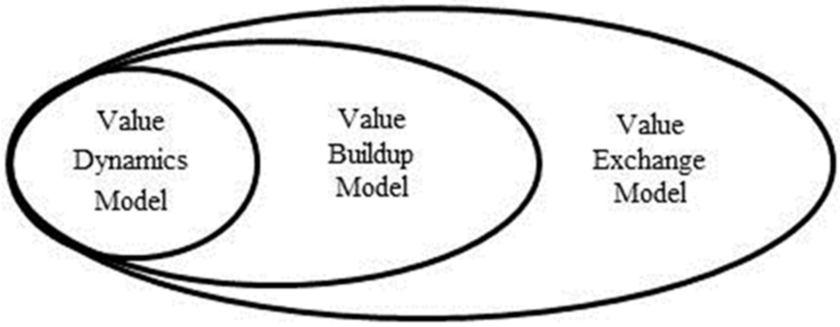

Figure 4. Describes how the Value dynamics model, Value build up model and the Value exchange model combined comprise a comprehensive view of customer perception of value. The configured model is created by Khalifa (2004)

Reflections related to the theoretical framework

Berghman et al. (2006) found the configuration of customer value, see Figure 4 created by Khalifa (2004) appealing because of the following two reasons: firstly the model considers the importance of adding additional benefits to customers and secondly it claims that new valuable attributes need to be applied over time. Sanchez-Fernandez & Iniesta-Bonillo (2007) review about the concept of perceived value describes the complexity of the area and also states that Khalifas configured model is an example how it is possible to illustrate the complexity. Even though the model is comprehensive there are probably several factors that also should be considered regarding customer perception of value especially since there is a lack of consensus regarding the definitions. Sanchez-Fernandez & Iniesta-Bonillo (2007) suggests that there is a lack of research regarding the dynamic nature of perceived value as well as the need for a measurement scale for the concept. Accordingly, this study is including dynamics in the perception of value.

Method

This chapter describes the qualitative multiple method approach, including interviews and small-scale focus group studies, taken to answer the purpose and research questions of the study.

Research strategy

The research strategy of this study is a mixed method which according to Denscombe (2010) is a strategy that combines different methods. This study has a qualitative approach comprised of both interviews and a small scale focus group which combined gives the study a mixed method strategy in an attempt to cover as many angels as possible of customer value. Dainty (2008) means that it's both legitimate and useful to use a multiple methodological approach when using multiple theoretical models if the general models or perceptions are questioned.
Trost (2005) states that a qualitative approach is appropriate when the objectives are to find patterns or build an understanding within a field which this study is aiming for.

Validity and reliability

The social science research is evaluated mainly in three ways: validity, reliability and replication (Bryman, 2008). Validity of data and reliability of methods in terms of quality and credibility has been questioned within qualitative research (Seale et al., 2007). Even though the evaluation criterion originally comes from quantitative research they can also be used in qualitative research (op.cit). For example, validity is often measured in numbers in quantitative research, but this is often not possible when it comes to qualitative research (Trost, 2005; Bryman, 2008).

Validity, in social science, is often defined as to what extent we actually measure the same thing as the researcher claims (Esaiasson et al., 2010). Some researchers divide validity into several sub definitions such as, external and internal validity (op.cit). External validity is more or less the possibility to generalise the conclusions of the study into other contexts or populations (op.cit). Internal validity refers to how credible the result or conclusions is in the specific study (op.cit). In order to increase the validity of the result a summary can be sent to each respondent to confirm its content and interpretations, but on the other hand it can result in complications, e.g. what to do if the respondent doesn't agree with your interpretations (Trost, 2005). No summaries were sent to the respondents in this study because the study was about finding customer perceptions of value and there might be some unexpressed values that the respondent did not say explicitly and therefore the respondent may not agree with the researcher's interpretation.

Reliability means to what extent the results will be the same if the study is conducted at a later occasion or by another researcher under the same conditions (Silverman, 2005; Bryman, 2008). Accordingly, it is important to be transparent regarding how the study is conducted which reinforces the importance of the method chapter.

The following describes what actions were taken in order to increase the validity and reliability of the study where each measure is described in the reaming part of this chapter.

In order to enhance validity of the collected data mainly two measures were taken:

i) *Purposive sampling,* to ensure all the respondents have relevant experience in pulp business
ii) *Multiple methodology***,** in terms of qualitative interviews and small scale focus group to cover several angles of perceptions of value since the field of customer perceptions' of value is fragmented

In order to ensure the validity of the data analysis process three measures have been taken:

i) *Comprehensive data treatment,* including transcribing and analysing all the data from the interviews

ii) *Use of NVivo,* to ensure a structured and methodical approach of the data analysis

iii) *Framework for analysis***,** to make consistent comparisons of the data

To achieve reliability in the reported results mainly two techniques were used:

i) *Digital tape recorders*, in order to accurately intercept the opinions and the tones of expression

ii) *Quotas,* in order to be transparent about the respondent views, accordingly the reader independently can take part of the data

iii) *Translation appendix,* to show a transparent translation from Swedish to English when it comes to the terms and quotas in the result.

Ethical considerations

By using ethical guidelines, thoughtful and ethical research practice the researcher was aiming to reach Silverman's (2011) ethical goals; people participate voluntarily, people's comments and behaviour are confidential, protecting people from harm as well as to make sure there is a mutual trust between researcher and respondent. One way to reach the ethical goals is to use an informed consent which according to Rudestam & Newton (2007) can include the following content:

- *who is conducting the study*
- *why was the particular interviewee singled out for participation*
- *what is the time commitment*
- are there any benefits to be expected
- are there any potential risks and if so how are they managed
- *explain the study and offer to answer questions*
- *clarify that participation is always voluntary*
- *explain the limits of confidentiality*

Trost (2005) on the other hand means that it is not appropriate to talk about potential benefits or potential risks because the researcher cannot possibly know neither what benefits the interviewee gets or what is risky for each interviewee. Furthermore, Trost (2005) means that it is not necessary to describe the study in detail and not to promise the interviewee a copy of the result since the researcher cannot be sure the study will be finished. In the first contact with the respondent by email and in the follow-up conversation by phone the content in italics in the list above was given. Regarding *explain the limits of confidentiality* there was a focus on ensuring the anonymity of the individual person, since the customer firm to which he/she belonged was already known to several people.

Phases

The approach of the study can be divided into two phases where the first phase describes how and where the literature regarding the theory was found, but also how and where the method literature was collected. Furthermore, phase I also comprise of purposive sampling, interviews, data analysis and the framework for analysis. The second phase of the study comprise of the small scale focus group, but also how the interviews from the first phase were complemented. The reason why the method is divided into two phases is that the findings from the first phase will be used in the second phase.

Phase I

The data in the theory chapter was gathered from different books within the marketing field, which were found through search engines as *Primo, Google books* and W*eb of science* as well as journal articles collected from different search engines, mainly W*eb of science* and *Google scholar*. The search result was first sorted by times cited to make sure the most acknowledge articles were used and then sorted by relevance for this study. The key words used were mainly: branding, marketing, customer perception of value and customer value. These key words have been combined with forest industry related words such as: forest sector, forest industry, forestry, pulp, pulp business, pulp producer. Among the suitable search results, especially review articles were explored.

The method literature was found through search engines such as *Primo* and *Ebrary,* and by going through dissertations, reports and other master theses to get an overview of suitable literature. Method literature has been reviewed in order to find several views and to get knowledge about advantages and disadvantages with different methods to establish a good base for method decisions.

For some of the specific data, related to the forest industries, webpages belonging to companies, forest associations or other actors have been used.

Purposive sampling

To hand-pick the respondents for research, based on if they have known attributes regarding relevance or knowledge for the study is called purposive sampling or if the respondents are selected since they are believed to have valuable data or insights for the specific study (Denscombe, 2010). That's a reason why purposive sampling is a proper method for this study since suitable respondents can be tricky to find with other methods. The purposive sampling gives an opportunity for the researcher to find a sample that represents relevant customer firms and persons to answer the objective. The sampling has been conducted together with the host company since they have greater knowledge within the field than the researcher itself. The main criteria were that Södra's three customer segments: tissue, paper and special were represented. Another criterion was that the customer firms should have different time spans of the relationship with Södra.

In an organisation the sales manager, production manager and purchasing manager probably have slightly diverse opinion of what value is. Although it would be a large sacrifice for participating organisation to allocate all three different types of personal for participating in this study which may result in a risk that the customer firms do not want to participate. Therefore, it is desirable from the researcher's point of view that the respondents have different backgrounds in order to find as many angles as possible on their perception of value.

Due to Södra's knowledge about the customer firms and since they provided contact details to the respondents' carefulness have been taken in order to protect and keep the anonymity of the answers. A person with great knowledge about the participating organisations and if one having regular contact with them, there is always a danger that they can figure out who answered what, if the quotas is consistent with information they regularly hear from some persons/customer. However, all the respondents were informed how their contact details had been distributed.

The respondents

As seen in Table 1, eight mills that are customers to Södra Cell were interviewed of which five were situated in Sweden and three within Europe. Some of the respondents represented the central purchasing department of the customer firms and others represented a specific mill to which Södra delivers pulp. The respondents mainly represent purchasing tasks, but also persons representing research and development, material and logistics as well as one mill manager were interviewed. The respondents had an experience from the pulp and paper sector ranging from 3 to 35 years.

Table 1. Summary of the respondents and their organizations; title or work task, location of mill, the interviewee's years of experience in the forest industry and if the interview was conducted face to face or over telephone

Customer firm	The respondents work task	Location of mill (nation)	Year of experience within forest industries	Type of interview (face to face or telephone)
I	Mill Manager	Sweden	21	Face to face
II	Purchasing	Sweden	4.5	Telephone
III	Research & Development	Sweden	30	Face to face
IV	Material & Logistic	Sweden	16	Face to face
V	Purchasing	Sweden	25	Telephone
VI	Purchasing	Slovakia	3	Telephone
VII	Purchasing	Germany	28	Telephone
VIII	Purchasing	Norway	34	Telephone

Even if many of the respondents' works within purchasing some of them had a background from production. Some of the respondents working with purchasing were responsible for purchasing to the group whilst others were responsible for a mill.

Interviews

The respondents were first contacted by email with information, influenced by the ethic consideration that is described earlier in the method, and then phoned a few days later if the respondent didn't requested email contact. Trost (2005) describes that at letter can be a proper way for the initial contact with the respondent. However, these days an email to a respondent within a large corporation would be preferable in front of a real letter. When phoned the respondent an appointment was booked for the interview and decided if either conducted by phone or face to face. Trost (2005) says that in general it is wise to delimit the number of qualitative interviews to approximately eight since an excessive material could limit the researcher to see similarities or differences in the collected material. Eight interviews were conducted of which six was in Swedish and two in English since the Norwegian respondent could communicate in Swedish. Using two languages complicates the analysis phase and the translation from Swedish into English. The quotas in the results are translated from the interviews carried out in Swedish. The words used when translated quotas and the analysed results from Swedish to English are attached as an appendix.

The interview form, see Table 2, consists of the overall questions. The interview form was evaluated after the first interview and the questions were not be pledged in the same order to all respondents since the questions were supposed to be a natural outcome of the conversation and answers (Trost, 2005). The questions were open which according to Denscombe (2010) leaves interpretation of the question and the length of the answer to the respondent and often the questions are pretty short, but answers tend to be longer. The advantage with open questions is that they are likely to gather the complexity of the answers because the respondent is allowed to expand their answers (Denscombe, 2010). On the other hand the disadvantages are that these types of questions are more demanding and time consuming which may affect the willingness to participate in the study and that the answers are complex and it might be time consuming for the researcher to process the data before it can be used (Ibid.). The questions used when conducting interviews in Swedish is attached as an appendix, see questionnaire appendix, in the end of the study.

Table 2. Describes the questions asked during the interviews and what the questions are aiming to answer

Question	**Objective with question**
Describe your work and relationship with your suppliers.	Identify type of relationship. Value build up model
How are pulp suppliers contributing to your business?	Identify components in customer value. Value exchange model
What do you want from your suppliers?	Identify components in customer value. Value exchange model.
What values do you associate with the brand of supplier: Södra Cell, Company B, Company C and Company D?	Explore perceptions' of suppliers' brand
Have your needs changed by time and how do you think they will change in the future?	Identify changes in value perceptions? Value dynamics model
Do the suppliers perform in a consistent way?	Identify the dynamics of value. Value dynamics model

The interviews were recorded, given an approval from the interviewee, which enabled relisting on intonation and the respondents' choice of words (Trost, 2005) which is important in this study. To listen on the recorded interviews also gave the opportunity to evaluate the researchers' performance and improve the interview technique for the upcoming interviews (Trost, 2005). One disadvantage with recorded interviews may be that it is time consuming to listening and transcribe the recorded interviews (op.cit.). The respondents were offered face-to face interviews, but some respondents requested telephone interviews because they thought it was easiest and least time consuming and in other cases the distance to the interviewee made it unreasonable with a face to face interview considering the travel time in contrast to the length of the interview. All interviews lasted between 30-40 minutes, accept from one where the interview ended after 15 minutes due to other commitments from the interviewee. Therefore a questionnaire was sent by email with a reply from the respondent, accordingly all questions became answered. Face to face interviews were recorded by an application on a Smartphone. The telephone interviews were recorded by using the speakers on a Smartphone and preinstalled audio recording software on a laptop. All audio files were deleted when the thesis became approved. Telephone interviews have several advantages and disadvantages in relation to face to face interviews (Bryman 2008). The advantages with telephone interviews are; i) cheap and easy to administer; ii) the distance between the interviewer and the interviewee may decrase potential risk that the interviewer affect the interviewee (op.cit). The disadvantages with telephone interviews compared to face to face interviews are; i) The length of interviews is usally shorter than personal interviews and; ii) no opportunity to make observation of body language (op.cit)

After the respondents accepted to participate in the study and thereby the participating customer firms were known, background information was collected such as number of employees, turnover, type of products etc. in order to be well prepared at the interview and to get an increased understanding of the respondents answer. For the mills located in Sweden this information was collected from the *website retriever-info.com,* but also company websites and for the mills located outside Sweden information was collected only on company websites.

Before the eight interviews started, a test interview was conducted with one person working with strategic purchasing in the forest industries, but in another field than pulp procurement. According to Trost (2005) a well-executed pre-interview can be used in the result since the material is collected and someone has taken their time off for the interview. However, this is widely discussed area (op.cit). There were mainly two reasons why a test interview was conducted. Firstly the questionnaire was tested and secondly to get a deeper insight in the purchasing field which gave the researcher a better and broader knowledge. The test interview will not be used in the result of the study, but contributes only to the understanding of the area and development of questionnaire. The result is not used since the respondent does not work within pulp procurement.

Data analysis approach

The analysis of the data was conducted with help from a computer assisted qualitative data analysis software (CAQDAS) called NVivo. The transcript from the interviews and focus group were done manually and then attached into the software. The advantages with the software are that it helps the researcher to store the data, facilitate the coding of the data which enables a more structured and organised analysis of collected data (Denscombe, 2010). The analysis was based on the indicators in the framework for analysis, see Table 3.

Denscombe (2010) means that looking for themes that emerge in the transcripts is preferable to avoid giving findings in one interview more relevance than in another. The software facilitated to organise the answers and to keep the emerging themes together in different nodes. In total five nodes was created and the answers from each interview was coded into these. One node for each research question was created, but also one for information about the interviewee and one for other findings. In the node for research question one, one sub-node for each found value was created when going through the coded transcript which ended up with eight sub-nodes. In the node for other findings four sub-nodes were created in order to separate the transcript material to each finding. Each node was then summarised and the emerging findings as well as some individual findings are presented in the result section.

Since, the answers were divided into the nodes based on the research questions there is a confidence in the analysis regarding that the right data are sampled at the right node meaning that all answers with some kind of relevance for each research questions is gathered and analysed in a confident way. Furthermore, the software provided ideal summaries over the number and which of the respondents' answers were categorised in each node which facilitated the structure of the results.

Framework for analysis

The framework for analysis, see Table 3 was created to ease the analysis through the indicators and were helpful when using NVivo to identify the respondents' perception of value. Creating indicators and divide them into the multiple theoretical models is an attempt in order to avoid missing any underlying values in the answers' from the respondents. The indicators are mentioned in the theory section and are written in italics. Note that there, most likely, will raise values when analysing the interviews that are not considered in the framework for analysis

Table 3. Describes the value indicators divided into each one of the three models based on the theory chapter

Value exchange model indicators	Value build up model indicators	Value dynamics model indicators
Transaction cost (reduced)	–	-
Price	–	-
Quality	–	-
Performance	–	-
Features	–	-
Flexibility	–	-
Delivery		-
	Personal interaction	-
	Support	-
	Trust	-
	Commitment	-
	Investment	-
	Serviceability	-
		Price
		Support
		Relationship
		Technical development

Phase II

Focus groups

An advantage with focus groups is that the collected data is a mix of the different perspectives from the participants in the group and thus may give a broader picture than individual interviews (Esaiasson et al., 2010). Denscombe (2010) means that an ideal number of persons in a focus group are between six and nine in order to get a comprehensive view, but still have a manageable group size, but sometimes in small scale social research, like this study, mini focus groups of three to four people can be used. In this thesis a small scale focus group was conducted with two representatives from Södra. It all started by letting the participants discuss what they thought pulp customers perceived as a value by their suppliers. Afterwards they were showed the findings from the interviews followed by a discussion about similarities and differences.

Further data collection

When the data was collected and analysed and parts of the results written, the respondents were re-contacted with some questions that appeared during the processing of the data. The main purpose was to ask the respondents to rate the findings of research question one, but also other questions to erase some questions marks from the first interviews. The complementary questions were send to the respondents by email since a general request from the initial interviews was that if there were any further questions, those would preferable be sent by mail. Of the eight interviews, six answered on the complementary questions of which three were Swedish customer firms and the remaining three were from outside Sweden.

Results and Analysis

In this chapter are presented the results and findings from the qualitative interviews and the small scale focus group studies. They are presented as an assessment of the three research questions where each research question is followed by a section of analysis and reflections.

1. What are pulp customers' perceptions of value and brand?

In this section the emerging themes about the respondents' perceptions of value are described. A summarising table of the values, see Table 4, is presented at the end of this section. After the perceptions of value, the perceptions of brand will be presented.

Perceptions of value

Price

One value element that was mentioned by all respondents and one of the most important values in the business between the supplier and the customer was price.

"Price is the determining factor" (Respondent V)
"Price is always important" (Respondent VII, Respondent VIII)

There was a common opinion that price was important although it was not necessarily the lowest price that won the contract, but it cannot differ significantly from the competitors. The customers will not pay extra for added values, but those added values can be important if the price range is similar between two actors.

"It is not always the cheapest that wins the contract" (Respondent VI)
"...does not necessarily mean we take the least expensive, but must be in the right price range" (Respondent V)
"We appreciate that the added values are present, but it is really not something that we can pay for. Although the added values can be a deciding factor when evaluating two customers if the price range is similar for both" (Respondent V)

When talking about price some of the respondents clearly said that it is the total cost that matters, of where price is one ingredient.

"What is valued is the total cost". (Respondent IV)

Quality

Another value that all eight of the respondents brought up was quality, even though the specifications of quality were related to the character of the business (e.g. tissue etc.) to each customer firm they all expected a high and stable quality.

"...stable and reliable quality" (Respondent VII)

Some of the customers bought standard products whilst others had a more custom made pulp, all depending on their needs.

"We are not into all details when it comes to quality of the pulp" (Respondent I)
"Together we have developed a pulp, it is not a standardised product" (VIII)

Some performance related attributes that came up was porosity, dirt content, water content, softness, openness and strength, but as already stated, the performance attributes are many and varies among the customer firms and each customer have their own quality specifications.

"*We are looking for the right quality, can be openness….strength, you name it*" (Respondent III)
"We have our own specifications of quality" (Respondent VIII)

Support

All eight of the respondents talked about support in aspects of two main perspectives; one technical and one commercial, but also an administrative support was mentioned by one respondent. Support was something that all suppliers seemed to offer their customers, but to varying degrees. What also seems to vary was to what extent the customers actually used the support and what type of help they needed seemed to vary between customer firms.

"We need especially technical support but also in the commercial parts" (Respondent II)
"Technical support is available but is not so much needed as administrative support" (Respondent III)
"We need technical support and commercial support" (Respondent VII)

Technical support can consist of discussions between supplier and customer around opportunities for improvements or development as well as information about the delivered pulp in terms of different quality performances. One of the respondents mentioned that they had used their suppliers laboratories for different analysis which they really appreciated even though it does not happened that often. Some of the respondents said that they rarely use the technical support even though some wanted to increase their use of this kind of support.

"All our suppliers invite to technical discussions to develop, we have a wish to do this but don't have the time available" (Respondent II)

The commercial support is more about price and discount discussions depending on movements of price index etc. One of the respondents brought up administrative support regarding increased demand of information, such as information about the actual forest stand that the pulp originated from.

Environment

The environmental aspect of an offering was something that all eight respondents brought up and this covers a broad spectrum of labels and certifications. Firstly, there is a high request for FSC and PEFC certified pulp and secondly there are different kinds of ISO-certifications and thirdly labels such as the Swan, EU Ecolabel etc. Another important factor was that the pulp was bleached through a TCF (Totally Chlorine Free) process instead of ECF (Elementary Chlorine Free) process.

"One requirement is that the pulp should be TCF" (Respondent II)
"FSC is essentially a basic requirement" (Respondent III)

One of the respondents described that a general belief is that FSC or PEFC is enough, but instead it is a basic requirement which then is added with specific demands from different markets and can comprise of information about the harvested logs, cutting permissions and similar types of information, which comes from a growing environmental concern.

The customers that explicitly talked about the demand for TCF-pulp said that the reason was that their customers had strict requirements regarding a totally chlorine free bleaching method.

Logistics

Logistics is something that was mentioned by all eight suppliers as important and comprises aspects as delivery precision, supply reliability and terms of delivery. The detail in each aspect varies among the customer firms, but none of the customers experienced any complications regarding this area related to the suppliers.

"One part of the product is of course deliveries" (Respondent II)
"There are no problems with deliveries" (Respondent VI)
"We really have no worries with the deliveries; we get what we should have" (Respondent III)

Some customers were a bit worried about the change regarding transportation method, moving from train towards lorries. This affects these customers' brands in terms of environmental aspects, which is an important part of their branding. This aspect will be discussed further in the section 'Other findings'.

Relationship

Relationship was mentioned by five of the eight customers. Several of the customers had long-term relationships with one or several suppliers.

"Long term relationship is an essential part, absolutely" (Respondent II)
"The relationship is important. The confidence strengthens by time. If you had a relation for ten years, most likely you will have a relation upcoming year as well" (Respondent V)

A few customers said that a long relationship tends to simplify some areas. With a good relation and a mutual trust an order worth millions of SEK can be placed using only one simple sentence in an email. This leads to lower transaction costs, but they are negligible when looking at the whole package.

Terms & Conditions

The payment conditions are highly connected to the price, but also include agreements on number of days before payment etc. Four of the eight talked specifically about the payment conditions and that they need to be competitive.

"Payment conditions are necessary" (Respondent VII)

Trust

This is something that was brought up by four of the eight respondents. However there is a wide meaning of the word and it can be interpreted in the answers from the reaming four customer firms as well.

The respondents talked about keeping what you as a supplier promise and that a trust in the product regarding more or less all aspects of the product and its surrounding services. Trust in the quality, trust in the relation, trust in the supports etc.

"If one doesn't keep what is promised, one is off for a very long time" (Respondent V)

Trust was mentioned mainly by the customers that have only one or a few suppliers. With one supplier the customer firms gets more vulnerable if a problem strikes the supplier, which may increase the importance of trust to the supplier.

"For us trust and support is a huge thing" (Respondent I)

Some of the respondents said that they do not have any opportunity to test and verify the quality of the pulp due to resource constraints and therefore need to have a complete trust to their supplier's pulp.

Summary

Table 4 is a summary of the eight emerging value parameters that the customers mentioned and the table displays how many of the customers that talked about each value parameter. Some of the values as quality have a very low resolution since each customer have their own specifications, therefore the table and the answers in this chapter can be seen as value indicators or value parameters that the customers want in an offering, but not specific details.

Table 4. Is a summary of the eight emerged value parameters that was found during the interviews and also the eight respondents' answers

Value				**Customer**					**Sum**
	I	II	III	IV	V	VI	VII	VIII	
Quality	✓	✓	✓	✓	✓	✓	✓	✓	8
Price	✓	✓	✓	✓	✓	✓	✓	✓	8
Support	✓	✓	✓	✓	✓	✓	✓	✓	8
Environment	✓	✓	✓	✓	✓	✓	✓	✓	8
Logistics	✓	✓	✓	✓	✓	✓	✓	✓	8
Relationship	-	✓	-	✓	✓	-	✓	✓	5
Terms&Conditions	✓	-	-	✓	-	-	✓	✓	4
Trust	✓	-	-		✓	-	✓	✓	4

Which of the values are "need to have" and which values are "nice to have"

The six of eight respondents, answering the complementary questions, in general said that all the eight values are more or less "need to have". Four of the six respondents said that the most important value was quality followed by price. The other two also ranked price and quality as very important, but did not distinguish them as clearly.

"Price is essential; the rest of the values are need to have, but the relation is possible to build if it doesn't exist" (Respondent V)

When it comes to the other values it differs among the respondents how they ranked the values, but the majority ranked relationship as the least important of the values mentioned. Another theme that is general for most of the answers is that the environmental aspects are more important than support.

Analysis and reflections

One can note that the described themes are quite general and the meaning of each one is different among the customer firms. For example the quality parameter is dependent on the specifications of the product the customers are producing. Therefore the findings can be seen as general areas were the suppliers can put some effort, but not detailed descriptions of what the customers specifically want.

In order for a producer to be able to deliver pulp to a customer, it is likely, that the customers' requirements need to be fulfilled by the producers' offering. From the findings one can say that all the values presented more or less are values which the customer see as "need to have" where the two most important are quality and price. One value that was considered as less important was relationship which can indicate that loyalty is not that important, meaning that the customers probably choose the best available offer.

Price was mentioned as the second most important value, but it would be more suitable to talk about relative price since some customers said, it is not always the cheapest that gets the affair. This can be interpreted as the supplier with the lowest relative price; price divided with other values in the offer is most likely to get the contract. The competitors' offers are used as a benchmark of which the customers can compare the relative price with.

It is not surprising that all customers wants low prices since the purchase of pulp constitutes a large, visible and defined cost meanwhile other costs, for example if a processing machine needs more energy with one pulp compared to another, are more hidden and are only seen when looking at the total cost. This indicates the importance for the supplier to get the customer firm to evaluate the total cost, in order to get an equitable evaluation.

The growing environmental requirements' were partly because of the increased requirements from the customer firms' customer. This indicates how the customer firms' customer needs are affecting the pulp producers and that it may be important for the producers to have a good knowledge about their customers' customer's needs. Also considering that some of the respondents talks about traceability of the pulp back to raw material in the forest indicate how the customer further down the value chain demands information from the processes in the whole value chain

Perception of brand

Södra Cell

All the customers had associations to Södra as a brand, but they varied. Aspects that were mentioned were for example environmental awareness, TCF producer, pulp producer and good at profiling and communicating new ideas. One of the respondents also mentioned that Södra was known because their main competitors used Södra as a supplier.

"TCF producer" (Respondent VI)
"Good at communicating new ideas" (Respondent II)
"High environmental awareness" (Respondent I
"Known since our main competitors use Södra" (Respondent VI)

Furthermore the customers in general spoke about Södra as a stable and reliable supplier, which is something that seems to apply for other suppliers as well. One thing that was mentioned several times was that Södra is better than their competitors at support. Södra has a system called PulpServices which is a generic name for different services and was appreciated by several customers, but there were also some customers saying that they do not use PulpServices in any great extent.

Company B

There were little or no associations about Company B. Most of the customers did not have any associations at all, whilst only one felt that he had a good idea of what they offer. Some also associated this producer more to its paper products rather than a pulp producer.

"Producer of paper products" (Respondent I)
"…been good at showing what they are offering" (Respondent II)
"Have no opinion" (Respondent III)

Company C

There were different associations to this producer, but in general the respondents did not have any thoughts about this producer. One knew it very well since the interviewee itself worked within this corporation, but in another division then pulp production.

"No opinion" (Respondent III)
"We have bought some pulp, grade it a bit lower" (Respondent I)
"Not so familiar with them, have a product we can't use" (Respondent II)

One note is that the interviewee who grades this producer's pulp lower than Södra's did not have any specific reason for why, it was just a feeling.

Company D

In general none of the customers had any associations of this producer. Some of them did not even know the producer existed. One of the respondents knew them in terms of being a pulp producer, but did not have any experience or any associations in general.

"Not aware of them" (Respondent I)
"Nothing we used" (Respondent IV)
"I know about these producers but I have never worked with them closely" (Respondent VI)

Analysis and reflections

The associations did not differ depending on the answers from the Nordic customer firms or the European customer firms. This result is quite surprising in several aspects. All of the producers are pretty large actors. Accordingly, it would be reasonable if all the customers had associations to the producers since the market is not that large.

One of the producers, Company B, has their production outside the Nordic countries and therefore it could be likely that the customers outside the Nordic countries had more associations to this supplier than those in the Nordic, but that was not the case. Although the population outside the Nordic countries is limited and the answers may have changed with another structure on the population. One observation is that a few respondents, all of them Nordic, did not even know this producer existed, which can be an indicator that Company D is not looking for businesses in the Nordic countries which somehow make sense considering other large actors have this as their "homes arenas".

Considering that Södra believed these were their main competitors, one conclusion is that when it comes to the customer firms in the study, they are not. The findings could be different with another population.

In those cases when the respondent had perceptions to other producers than Södra, they still weren't specific, only the knowledge that the producer existed. Respondent I did occasionally buy pulp from Company C although he/she rated it lower than Södra's pulp, but could not tell why. Either are the respondents reluctant to talk about other producers or maybe Södra is better at communicate and show what they offer beyond the pulp itself. The fact that Södra chose the population may influence the answers.

Respondent II had perceptions of three of the four producers. Probably because the respondent is well familiar with the market and its actors compared to the other respondents.

2. Are there any perceived values that have changed by time and what are the customer's thoughts about the future- future dynamics?

Aspects of the pulp customer firms' perceptions' of values that have changed in a historical perspective varied among the respondents.

One aspect that all the respondents brought up was an enhanced importance of the environmental aspects. The increased importance of the environmental aspects seems to originate from environmental non-governmental organisations (ENGO), the pulp- customer's customer as well as initiative from the forest industries. Certification schemes that were brought up were: FSC and PEFC. The customer firm's said that the suppliers, historically, had difficulties to deliver the requested certified volumes, but is not an issue today.

"Many times we do believe that FSC and PEFC is enough but our customers assume we have that and then add more requirements" (Respondent III)

The requirement for the pulp to be bleached through a TCF process instead of ECF was mentioned by several of the respondents. A further environmental label that was mentioned was the Ecolabel the SWAN (In Swedish Svanen). The aspects in terms of water use and pollution from pulp industries were also mentioned repeatedly.

"The environmental aspects have become more important" (Respondent II, Respondent V)

Other aspects that were brought up, but not were mentioned by the majority of the respondents where changes in terms and conditions and increased request regarding both pulp quality and logistics, but also support.

"Payments conditions was earlier 20-30days, these days we don't, more or less, make business with anyone that don't accept 60 days"(Respondent IV)

When the respondents talked about their future perceptions' of value they believed in an ongoing environmental awareness and that these types of issues will be even more important part of customer value in the future

"The efforts with the environmental aspects will continue" (Respondent II)

In general the respondent's main thoughts about the future environmental challenges are energy consumption and water use. Other areas that came up were transportation, chemical use and its related legislation.

Some of the respondent also mentioned that one of their main concerns about the future lies in the decreasing demand on their own products. Due to the decreasing markets, research is of great importance in order to develop new qualities and products.

"…what lie in the future is not just the paper and todays paper qualities, but also trying to look for future applications based on fibre. This is something that we work with our supplier works with but of course also other actors" (Respondent VIII)

There were also several respondents that said that the requirements on the pulp quality and logistic solutions will continue to increase in order to be able to produce better products to competitive prices.

"The efforts regarding the pulp quality will keep going, we want to be part of that development in order to produce the best possible products." (Respondent II)

Four of the respondents discussed the importance of the distance and location between the pulp customer firms and their suppliers. Some of them could see an advantage in having the pulp producer located nearby its own business due to logistics reasons whilst others felt that Nordic pulp producers have a higher environmental awareness than other suppliers. Another respondent discussed the issue in having a value chain spread across the world due to environmental aspects and that the closeness between raw material, pulp producers and tissue/paper producers may be of greater importance in the future.

"The closeness between actors may play a greater role" (Respondent V)
"In general I can say that is a future advantage to have so nice pulp mills nearby…" (Respondent I)

Analysis and reflections

When analysing this questions one can say that when it comes to the perceptions of the changes there is not many emerging themes from the customers. However, the increased importance of environmental aspects is the only theme that all respondents brought up. When talking about the future perceptions' of value the answers are spread, but once again there is consensus regarding the ongoing environmental aspects.

However, several of the answers are indicating that the perceived values have developed by time such as quality, terms and conditions and the environmental aspects. These are probably areas where there will be an ongoing development from all suppliers. In order for a supplier to branding and differentiate the perceptions of the future with the growing importance of the environmental aspects must be considered.

With a larger population more emerging themes may have been found, now the answers become highly individual why no general conclusions can be made, but the environmental aspects in a product has become more important and there is future potential in this field.

3. Comparing customers' and Södra Cells perception of value?

The correlation between the customers answers and Södra's must be considered as high. Due to regular discussions with their customer firms combined with market surveys they had a good understanding of what the customer firms' value from their pulp suppliers. Although there was some difference in what Södra thought the customers would say. Södra thought that terms and conditions and price not were mentioned by the respondents, but it was. Otherwise the perceptions of the values mentioned by Södra during the workshop highly correlated with those said by the customers.

Analysis and reflections

Södra had good knowledge about their customer firms' perception of value and the respondents were satisfied with their suppliers in general. Accordingly, the knowledge of customers' perceptions' of value probably provides a foundation of where each supplier can create their offerings.

Considering that the customer firms were satisfied with their suppliers it is reasonable to guess that all suppliers are making efforts in gaining knowledge about customer firms' perception of value.

One can discuss why they did not think that term and conditions and price was brought up by the respondents. One reason could be that the respondents mainly represented specific mills and not the department of group purchasing and therefore not considered the commercial aspects, although that was not the case. Another reason could be that it is absolutely obvious that price is of great importance whereby it is left unsaid.

Other results

Deviating answers depending on the background of the respondent

From the interviews there were some indications of differences of the perceived or prioritised values between the actors in the customer firms. Some of the production oriented respondents talked a about the technical performances of the pulp whilst they had a feeling that the purchasing department focused solely on price irrelative the other values.

Basically, the issue is that even if one pulp has a lower price than another, the cost for processing the cheapest of them can be higher due to energy consumption or the need to add other components which gives it a higher total cost.

"In the end, for those who negotiate it's probably more about the price than support. I have that feeling. They don't see it that way. If you don't have a supplier that offers a high serviceability, then we need an employee for that but that cost affects another department than purchasing" (Respondent III)

Analysis and reflections

If this is an issue, the customer firms may have some sub optimisations and a supplier who offering a pulp to lowest total cost maybe doesn't get the affair. If this is a widespread issue the supplier could benefit to explore how their customer firms are evaluating different offers and if so, how to influence other actors within customer firms.

Dissatisfaction of the Swedish railway system

When talking about the value parameter: logistic, it was said that all suppliers are performing well and that there was not much to improve. However, some of the respondents mentioned their dissatisfaction regarding the Swedish railway system and that it is difficult to transport the volumes they want by train. The volumes transported by train to these mills were decreasing and the volume transported by lorries increasing. The respondents that brought this up had some concern how this will affect their own firms' brands. The environmental aspects were used in the marketing of their own brands and the trend going more against lorries was not desirable. None of the pulp suppliers was better or worse at this part, but was just a general dissatisfaction of the Swedish railway system due to poor maintenance which lead to poor delivery precision as well as closure for some distances.

Analysis and reflections

The movement from train to lorries can cause concern for other parts of the value chain if the pulp customer firms' brand is affected in a negative way. Accordingly, it can lead to decreased demand which also would affect the pulp producers. The poor maintenance of the Swedish railway system affects all the producers in Sweden, the respondents did not perceive any differences between the suppliers. However, this is an area where possible differentiation can be made if any of the producers in some way succeed to transport pulp by train to the specific customers that feel this question is of particular importance.

The suppliers' offered values is very similar

The majority of the respondents are saying that the values they get from their suppliers' offerings more or less is similar, nevertheless if the customer firms operates in countries in the Nordic or in Europe.

"The offerings between the pulp suppliers are roughly the same. All the suppliers know the market and they compete with small differences" (Respondent VI)

"They are incredible similar, all the producers. None of the suppliers can afford to be poor at anything; all the suppliers perform on a high level" (Respondent I)

<u>Analysis and reflections</u>

The comments about how similar the offering is between the different producers indicates the importance to have great knowledge about the customer firms' perceptions of value, but also how important it is to differentiate its own brand. The similarities between the producers also strengthen the importance of price; if a customer has several offers which are similar it all comes down to price.

Areas for improvement

During the interviews it came up several areas where pulp producers in general had potential to improve. There were no emerging themes from all the customer firms, but individual improvement for each industry. One respondent requested more information regarding dusting since that was one of their main issues. Another of the customers said that it is important that the suppliers are flexible when it comes to price discussions, which is not always the case. Furthermore one of the respondents called for automatic distribution of certificates from the suppliers to the customer firms which would be time saving for the customer firm. Another thing that was brought up when talking about the future needs was the wrapping without wire to save time and effort for the customer firms to remove the wire, an alternative is wrapping with paper instead.

<u>Analysis and reflections</u>

Within this area there were really no emerging themes, but opportunities for improvement for single mills/firms. However, even if some areas for improvements are identified it doesn't necessarily mean that the suppliers don't have any knowledge about the issues. In certain areas there were already ongoing development projects with the supplier involved. Since there are at least annual meetings between the customers and suppliers there are forums where this kind of issues are brought up. The meetings increase the opportunity for the relationship to develop.

This is a field where it is important for the supplier to make efforts in solving problems considering the competitive context producers are acting within. In general, the customers were satisfied with their suppliers which indicate that the producers and customer firms have dialogues regarding areas for improvement.

Conclusions and Discussion

Main findings

With reference to this study's three research questions, the summarised results from Södra Cell's eight pulp customers are:

1. Customers' perceptions of value and brand?

Eight value parameters influence customer firms' perceptions of value. These are: relative price, quality, support, environment, logistics, terms & conditions, relationship and trust. Respondents prioritised quality followed by relative price. Support, environment and logistics were of secondary importance and can be regarded as a hygiene factor. A key difference between respondents was the ranking of environmental aspects. Irrespective of the individual priorities, environmental aspects were consistently ranked by all respondents as more important than support.

Customers had positive perception of Södra's brand. Most customers had several pulp suppliers, whom they considered to be competent. No supplier was considered to have value destroying behaviours. Södra's sellers created a list of firms that were considered to be its main competitors. However, Södra's customers tend not to use these firms as suppliers. The small scale focus group event found that this was new information for Södra.

2. Future value dynamics?

All respondents considered environmental aspects to be an important value. The recent focus on environment has been in terms of certification, pollution and water use within the pulp sector. The ongoing climate change discourse means that environmental issues are increasingly important, with future dynamics likely to be that the customers want more information, a wider range of certificates, and the source of timber as well as all actors' conduct in the value chain.

It is reasonable to conclude that support, logistics and pulp quality will be areas of ongoing improvement.

Given price will remain an issue, and all suppliers are competent, one key issue will be how to enhance customer value while maintaining a low relative price.

3. Comparing customers' and Södra Cell's perceptions of value

The focus group discussion revealed that Södra Cell is highly aware of its customers' various perceptions of value, which are summarised above.

Theoretical assessment

This section now synthesises these mains results, as well as other findings, into Khalifas (2004) value configured model, which is illustrated in Figure 5. In this assessment, value exchange is considered to be current ongoing business; value build up elements are aspects of the offering that can add value to customer firms; and value dynamics are anticipated changes in the business landscape that can create new customer needs and opportunities for suppliers to differentiate.

Value exchange

The core value exchange parameters in current business that were identified in this study are:

- *Relative price,* all respondents report the importance of price. In practice, this is a price that is relative to: i) other value aspects of the offering, especially quality; and ii) other suppliers' prices
- *Logistics,* where key logistics values are precision of delivery, time of delivery and method of delivery
- *Quality,* which is the most important value to customer firms, which each firm having its own views on the meaning of quality
- *Environmental aspects,* in current business essentially comprise certification schemes such as FCS and PEFC. In current business is also the bleaching method considered where TCF is important. (Environmental values are likely to become more dynamic as discussed below.)
- *Support,* which is hygiene factor in suppliers' offerings
- *Relationships,* may be a core value, especially if the customer firm has chosen to limit their suppler base to two or three suppliers, become customers are confident that the supplier can consistently meet its needs

The customer firms that participated in this study all reported that they considered their current supplier to be able to deliver these values in a competent way.

Value build up

In ongoing business, when customers consider pulp is not a commodity, customers perceive that suppliers can potentially add new values to their business in the following ways:

- *Support - both technical and commercial,* is especially important to customers when the customer firm is further developing its offering to its own customers. In the support processes, supplying firms can deliver new values to customers
- *Relationships with suppliers,* has the potential to bring value to customer firms because the customer has trust that the supplier can provide the necessary support to the customer firm when the customer is developing its business

The customer firms that participated in this study all considered that Södra is particularly competent at offering these values. Several other pulp suppliers are also competent in these respects.

Value dynamics

The emerging dynamics that particularly influence customers' perceptions of value that were identified in this study are:

- *Environmental support services,* to enable the customers to i) label their products with a wide range of environmental-type labels e.g. SWAN and TCF-pulp; and, ii) provide particularly detailed information about the source of timber and the CSR-type behaviours of firms that were involved in the various processes that resulted in the production of a specific batch pulp
- *Relative price perceptions,* to maintain perceptions that a supplier's relative price is low, without actually cutting prices.

Firms that can balance the tensions between offering increased environmental support services and maintain relative price perceptions will probably gain a competitive advantage. The customer firms that participated in this study all considered that Södra is performing in many environmental aspects, especially TCF-pulp. Customer firms perceive that other pulp suppliers are not as credible as Södra in respect of environmental support services.

The configured model

The configured model created by Khalifa (2004)of customer perceptions of value was used to answer the purpose of this study.

In the assessment of customer firms' perceptions of their pulp suppliers, today's ongoing business is taken as the base line, and dynamics are considered to be potential opportunity for suppliers in the future. Accordingly, Kahlifa's model of configured value, see Figure 5, is adapted so that value exchange is on the left, value build up in the middle and value dynamics on the right. Figure 5 illustrates a summary of the above values in this assessment of value configuration where the left circle comprise the core values in today's business, the middle circle is possibilities for value adding and the right circle possibilities for future competitive positioning.

Note that meanings of the terms in this value configuration model, particularly environmental support services and quality, are customer specific.

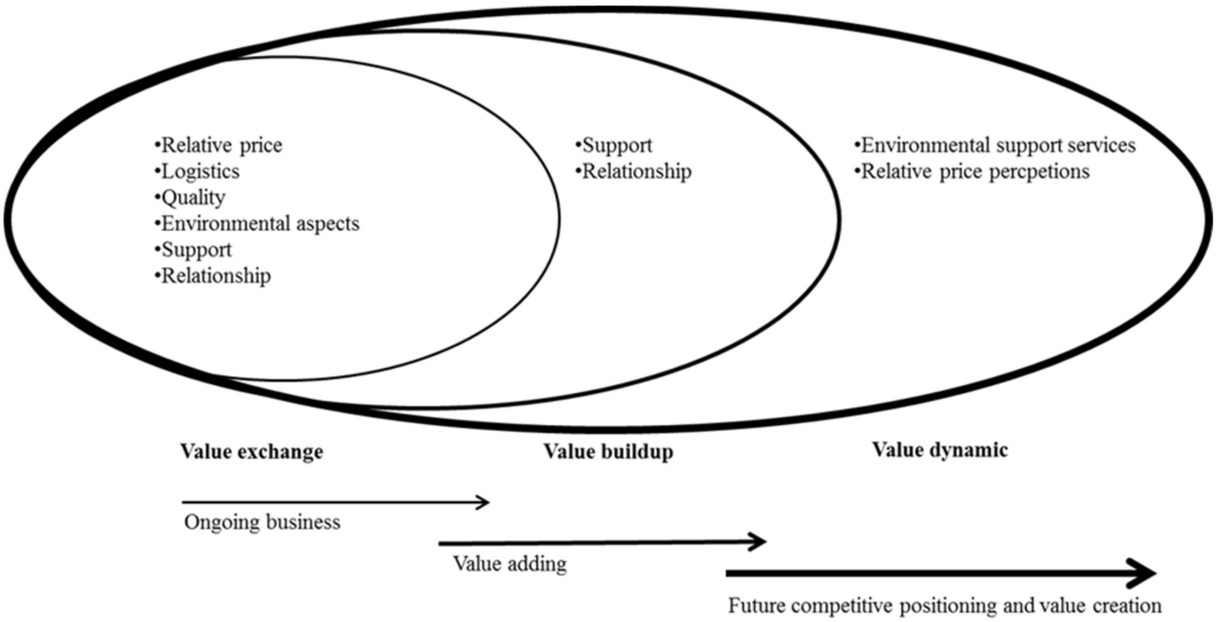

Figure 5. Describes which of the values found that can be attached into each one of the three models and combined comprise the configured model which is the theoretical framework for the study. Based on Khalifas (2004) model

Compare with theoretical predictions and previous research

When looking into the field of customers' perceptions' of value there are a variety of theories and models (Khalifa 2004; Grönroos 1997; Zeithaml 1988; Olhager 2013). The configured model created by Khalifa (2004) is an attempt to examine customers' perceptions' of value in an comprehensive way. When using this model one can reflect that there is some evidence that a comprehensive approach is taken considering that there are values in all three models and that Sanchez-Fernandez & Iniesta-Bonillo (2007) states the configured model to be comprehensive. However, all values are feelings and perceptions from the respondents which can be seen as "soft" data and it would be desirable to complement that data with some "hard" data in terms of numbers and figures, which would be easier to measure. This is the same critique as Sanchez-Fernandez & Iniesta-Bonillo (2007) gives Khalifas (2004) model and the field in general, the lack of measurement scales regarding customers' perceptions' of value.

The definition of customer value that Olhager (2013) described turned to be applicable also on the pulp customers which may not be a great surprise since both Olhager's (2013) definition as well as the pulp customer firms are within the field of production industries. Also the fact that the definition considers individual perceptions of the parameters is something that goes well in hand with the findings from this study. If one describe the term quality in Olhagers (2013) definition based on Garvin's (1984) definition it is even more comparable with the findings in this study.

Since there is a lack of applied research within the field of customer perception of value in the pulp business, the findings itself are contributing to increased knowledge. However, the finding complies well with the literature within the field of customer perceptions' of value when comparing models from Olhager (2013), Ulaga (2003) and Grönroos (1997). There are some deviations, such as the environmental aspects which are not brought up in the literature. However, the reason for this could be either that the environmental aspect is especially important in this sector due to sustainability perceptions of the raw material or that the environmental aspects have been established after the literature was published

The framework of analysis which was built by theories within customer perception of value was useful when analysing data. The majority of the value parameters in the framework reappeared in the answers from the respondents, but all were not presented in the results due to isolated appearances. Two of the emerged presented values, environmental aspects and terms and conditions were not presented in the framework.

Juslin & Hansen (2002) said that bulk production gradually is replaced by value added production which also the findings in this study are indicating. The pulp quality was found to be of high importance due do development both regarding technical issues and increased requirements on the final product. Accordingly, the bulk produced pulp doesn't appeal as many customers today as historically. However, every aspect of this is individual to each customer firm.

The answer on research question three revealed a matching perception of value between customer firms and suppliers due to customer surveys. Accordingly, the suppliers had knowledge about value perceptions even if there is a lack of published literature. Due to the nature of business suppliers probably have this knowledge in order to stay competitive and Tokarczyk & Hansen (2006) say branding is not a new phenomenon in the forest products industry.

One of the findings during the headline "Other findings" was a potential issue between actors within the customer firm. Ford (2002) describes the complexity in the relationship between suppliers and buyers. Figure 6 illustrates interrelations that occurred between suppliers and customer firms and is adapted from Fords' (2002) model. The model is supposed to illustrate how values can be communicated between actors and also indicate the importance of communication within the customer firm to give the purchasing department useful information.

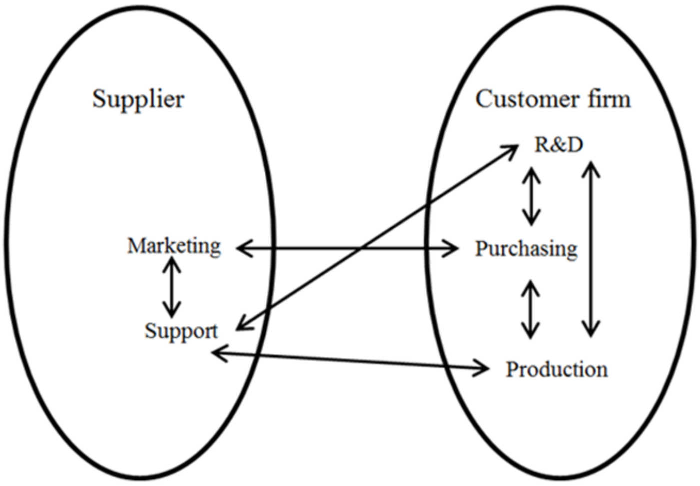

Figure 6. Describes some of the contacts between actors in a relationship between a pulp supplier and a customer firm. Adapted from Ford (2002)

In the end it is the purchasing department that make the final decision to use a supplier or not. If the communication between purchasing and the other departments in customer firms does not work there is a danger of sub-optimisations. To avoid this, the customer firm needs to co-ordinate between the technical and organisational resources before purchasing from a supplier. (Ford, 2002) Otherwise all the values offered from a supplier might not be evaluated by the purchasers, especially those values that get visualized for other actors within the customer firm, such as technical performances.

Method critique

The size of the sample and the characteristic of the population can decrease the validity of the findings in this study. The population comprised of only current customer firms to Södra Cell, even though some of them just recently became customers. Accordingly, the results presented are not applicable on pulp customers in general. A population, also included former customers would perhaps give a more balanced view of Södra but, also further associations to the other three pulp producers. However, several of the customer firms had several pulp suppliers.

The population size is pretty small and what the customer's value can be affected by several parameters as for example size of the company, what volumes they need, what kind of products they produce and what kind of markets or customer they deliver to. With a larger sample it would enable to categorise the customers in terms of size and type of products. Trost (2005) on the other hand say that it can be difficult to find similarities and differences when conducting too many interviews.

Writing a thesis in collaboration with a company or organisation there are potentially reduced credibility in the answers from the respondents. Occasionally during the interviews it felt like the respondents unconsciously interpreted that the questions were asked from the view of Södra instead of general questions about pulp business. Potentially, some of the respondents withhold answers which they don't want to give a researcher that collaborates with one of their suppliers. If the researcher would have been neutral, some of the results may differ from the findings in this study.

Since six of the eight interviews were done in Swedish the findings have been translated into English which also applies on some of the quotas used in the results. When translating from Swedish to English there is a danger in changing the true meaning of the sentence or word whereby carefulness have been taken when translating or making quotas. The validity regarding this would be higher if the interviews were conducted in English but, on the other hand the conversation is probably more natural if two swedes speak Swedish.

Further research

Considering the results presented in other results they represent fields where more research might develop the business between pulp suppliers and their customer firms and are summarised below:

- The result indicated deficiencies in the Swedish railway system. Accordingly, further studies could explore how this is affecting Swedish pulp customer firms' brands, for those firms profiling through high environmental consideration. There are some reports in this field but not related to brand issues (Anon 2011).

- The results indicated that actors within customer firms may have different perceptions of value, actors with production backgrounds emphasising other values then price. Accordingly, this issue ought to be explored further

- Further studies in the field of customer perception of value, with a larger sample and with a more detailed approach could reveal possible similarities and differences within different customer segments. The pulp business will probably develop due to decreased markets for some segments ant other might increase.

- As noted in the results, the meanings of terms such as quality and services are customer specific. Accordingly, future studies ought to assess each customer firm's specific interpretations of these terms

- The summary of the results are representative of the eight customer firms' perceptions of Södra Cell in comparison to three other pulp suppliers. Perceptions from other customers and the interviewed customer firms' perceptions of other suppliers may differ. Accordingly, future studies could explore these issues further

Final recommendations

In a business where the products and offerings in general are similar and where customer firms perceive small differences between the suppliers, branding and differentiation becomes a key issue to reduce the impact of these factors (Tokarczyk & Hansen, 2006). One should also remember that a customer firms perception of a brand, partly is influenced by a persons' associations, past experiences and feelings (Kotler & Pfoertsch, 2006). The knowledge about customer firms' perception of value is therefore essential to be able to offer the features requested. It is easier to differentiate the features rather than the pulp (Juslin & Hansen, 2002).

In a competitive context where all the suppliers are competent, the findings in this study culminates in four recommendations; i) keep up the good work by being active in the development of value parameters, especially quality; ii) listen and interpret future needs of customers' customers and develop accordingly; iii) consider future branding areas for dynamically enhance customer value since it is a dynamic world; iv) remember that price, i.e. relative price, will always be important.

References

Anderson, J. & Narus, J., 1998. Business Marketing: Understand Customers Value. *Harvard Business Review*.

Anon, 2014a. Key Advantages. Available at: http://www.mercerint.com/s/KeyAdvantages.asp [Accessed May 26, 2014].

Anon, 2014b. Market. Available at: http://www.sodra.com/sv/Massa/Vara-massaprodukter/Pappersmassa/Adresser-forsaljningskontor/ [Accessed May 24, 2014].

Anon, 2013a. Om PulpServices. Available at: http://www.sodra.com/sv/Massa/Om-pulpservices2/ [Accessed May 26, 2014].

Anon, 2014c. Services. Available at: http://www.metsafibre.com/Services/Pages/Default.aspx [Accessed May 26, 2014].

Anon, 2013b. Södra Cell. Available at: http://www.sodra.com/sv/Om-Sodra/Vara-affarsomraden/Sodra-Cell/ [Accessed February 12, 2014].

Anon, 2011. Vinterkaos for järnvagen - effekter för skogsindustrin. Available at: http://www.skogsindustrierna.org/vi_tycker/remissvar_arkiv/remissvar_16/vinterkaos_for_jarnvagen_-_effekter_for_skogsindustrin_1 [Accessed May 26, 2014].

Berghman, L., Matthyssens, P. & Vandenbempt, K., 2006. Building competences for new customer value creation: An exploratory study. *Industrial Marketing Management*, 35(8), pp.961–973. Available at: http://linkinghub.elsevier.com/retrieve/pii/S0019850106000915 [Accessed January 22, 2014].

Berry, L.L., 1995. Relationship Marketing of Services--Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science*, 23(4), pp.236–245. Available at: http://link.springer.com/10.1177/009207039502300402.

Brassington, F. & Pettit, S., 2013. *Essentials of Marketing* 3rd ed., Pearson.

Bryman, A., 2008. *Samhällsvetenskapliga metoder* 2nd ed., Malmö: Liber.

Dainty, A., 2008. Methodological pluralism in construction management research. In *Advanced research methods in the built environment*. Chichester: Wiley-Blackwell.

DanskeBank, 2014. Skog & ekonomi. , (2). Available at: http://www.danskebank.se/PDF/Skog-och-Lantbruk/Skog-och-Ekonomi/2014/Skog-och-Ekonomi-Nr2-2014.pdf [Accessed May 23, 2014].

Denscombe, M., 2010. *Good Research Guide: For small-scale social research projects* 4th ed., Berkshire: Open University Press.

Ellram, L.M., 1995. Total cost of ownership An analysis approach for purchasing. *International Journal of Physical Distribution & Logistics Management*, 25(8), pp.4–23.

Eriksson, M. & Lindroos, O., 2011. *Customer- percieved value in forest harvesting operations*, Sundsvall & Umeå.

Esaiasson, P. et al., 2010. *Metodpraktikan* 3rd ed., Vällingby: Norsteds Juridik.

FOEX, 2014. PIX Pulp Indexes Europe. Available at: http://foex.fi/.

Forbes, 2014. The World's Most Valuable Brands. Available at: http://www.forbes.com/pictures/mli45egehl/3-coca-cola/ [Accessed January 30, 2014].

Ford, D., 2002. *Understanding Busniess Marketing and Purchasing* Third Edit., London: Thomson Learning.

Garvin, D., 1984. What Does "Product Quality" Really Mean? *MITSLoan Management Review*. Available at: http://sloanreview.mit.edu/issue/fall-1984/.

Grant, R., 2010. *Contemporary Strategy Analysis* Seventh., Chicester, UK: John Wiley & Sons, Ltd.

Grönroos, C., 2004. The relationship marketing process: communication, interaction, dialogue, value. *Journal of Business & Industrial Marketing*, 19(2), pp.99–113. Available at: http://www.emeraldinsight.com/10.1108/08858620410523981 [Accessed January 24, 2014].

Grönroos, C., 1997. Value-driven relational marketing: From products to resources and competencies. *Journal of Marketing Management*. Available at: http://www.tandfonline.com/doi/pdf/10.1080/0267257X.1997.9964482.

Hugosson, M. & McCluskey, D., 2009. Marketing Competencies of Swedish Sawmill Firms. *Journal of Forest Products Business Research*, 6.

Juslin, H. & Hansen, E., 2002. *Strategic Marketing in the Global Forest Industries*, Corvallis: Authors Academic Press.

Khalifa, A.S., 2004. Customer value: a review of recent literature and an integrative configuration. *Management Decision*, 42(5), pp.645–666. Available at: http://www.emeraldinsight.com/10.1108/00251740410538497 [Accessed January 22, 2014].

Kotler, P., 2000. *Marketing Management* The Millen., New Jersey: Prentice Hall.

Kotler, P. & Armstrong, G., 2010. *Principles of Marketing* 13th ed., Pearson. Available at: http://www.google.se/books?hl=sv&lr=&id=ZW2u5LOmbs4C&oi=fnd&pg=PA12&dq=kotler&ots=BX3fCd1doh&sig=fOuR20XYh0t8SVABU8QgwHE5FRw&redir_esc=y#v=onepage&q=kotler&f=false.

Kotler, P. & Pfoertsch, W., 2006. *B2B Brand Management*, Berlin, New York: Springer.

Kreps, D., 1990. *A course in microeconomic theory*, London: Harvester Wheatshealf.
KSLA, 2014. *Skogsnäringens värdekedjor*, Stockholm. Available at: http://www.ksla.se/wp-content/uploads/2014/04/KSLAT-1-2014-Skogsnaringens-vardekedjor.pdf [Accessed May 24, 2014].
Larsson, B., 2009. *Customer percieved value of Swedish sawmill firms work with CSR*, Uppsala.
Lundmark, R., 2010. *Mikroekonomi- teori och tillämpning*, Lund: Studentlitteratur.
Mohr, J., 2001. *Marketing of High-Technology Products and Innovations*, New Jersey: Prentice Hall.
Olhager, J., 2013. *Produktionsekonomi*, Lund: Studenlitteratur.
Patterson, P.G. & Spreng, R.A., 1997. Modelling the relationship between perceived value , satisfaction and repurchase intentions in a business-to- business , services context : an empirical examination. , 8(5), pp.414–434.
Ravald, A. & Grönroos, C., 1996. The value concept and relationship marketing. , 30(2), pp.19–30.
Rudestam, K.E. & Newton, R., 2007. *Surviving Your Dissertation* 3rd ed., California: SAGE Publications Inc.
Sanchez-Fernandez, R. & Iniesta-Bonillo, M. a., 2007. The concept of perceived value: a systematic review of the research. *Marketing Theory*, 7(4), pp.427–451. Available at: http://mtq.sagepub.com/cgi/doi/10.1177/1470593107083165 [Accessed February 19, 2014].
Seale, C. et al., 2007. *Qualitative research practice*, London: SAGE Publications Inc.
Sheth, J. & Parvatiyar, A., 2000. *Relationship Marketing*, London: SAGE Publications Inc.
Silverman, D., 2005. *Doing qualitative research* 2nd ed., London: SAGE Publications Inc.
Silverman, D., 2011. *Interpreting Qualitative Data* 4th ed., California: SAGE Publications Inc. Available at: http://www.google.se/books?hl=sv&lr=&id=gRKCIfyEsdEC&oi=fnd&pg=PP2&dq=silverman+interpreting+qualitative+data&ots=kCtn6DYF_5&sig=qjxqDMrkwOIFpNre5FvMDQMeIt8&redir_esc=y#v=onepage&q=silverman interpreting qualitative data&f=false.
Sinclair, S. & Seward, K., 1988. Effectiveness of branding a commodity product. *Industrial Marketing Management*, 17(1). Available at: http://www.sciencedirect.com/science/article/pii/0019850188900235.
Skogsindustrierna, 2014. Massa 1980-2012. Available at: http://www.skogsindustrierna.org/branschen/branschfakta/branschstatistik/branschstatistik/massa-och-pappersindustrin/massa.
Tokarczyk, B.J. & Hansen, E., 2006. Creating Intangible Competitive Advantages in the Forest Products Industry. *Forest Products Journal*, (August), pp.4–13.
Trost, J., 2005. *Qualitative Interviews* 3rd ed., Lund: Studentlitteratur.
Ulaga, W., 2003. Capturing value creation in business relationships: A customer perspecive. *Industrial Marketing Management*, 32(8).
Wood, J., 2010. *Interpersonal Communication: Everyday Encounters* 6th ed., Boston, USA: Wadsworth Cengage Learning.
Woodruff, R.B., 1997. Customer Value : The Next Source for Competitive Advantage.
Zeithaml, V., 1988. Consumer Perceptions of Price, Quality, and Value: A Means-End Value : Quality , and Model Synthesis of Evidence. , 52(3), pp.2–22.

Appendices

Appendix I. Translation

The transcripts from the Swedish interviews were written and analysed in Swedish and then translated into English. The quotas from the Swedish interviews were also translated into English. Table 5 is describing which Swedish words that were translated into English in order to give the reader a more transparent perspective of the translation. The most basic words are not included.

Table 5. Description of the words translated from Swedish to English from the quotas used in the result and the analysed data from the interviews.

English	**Swedish**
Appreciate	Uppskattar
Cheapest, least expensive	Billigast
Confidence	Förtroende
Deciding, determining	Avgörande
Deliveries	Leveranser
Delivery precision	Leveransprecision
Environmental aspects	Miljöaspekter
Environmental awareness	Miljömedvetenhet
Offerings	Erbjudanden
Offers, provides	Erbjuder
Payment conditions	Betalningsvillkor
Perception	Uppfattning
Profiling	Profilering
Reliable	Pålitlig
Requirement	Krav
Standardised	Standardiserad
Service	Support
Supply reliability	Leveranssäkerhet
Terms and conditions	Villkor
Terms of delivery	Leveransvillkor

Appendix II. Questionnaire

The questionnaire used during the Swedish interviews is described in Table 6.

Table 6. The table is comprised of the questionnaire used during the Swedish interviews and what the question was aiming to answer.

Fråga	**Med syfte att undersöka**
Beskriv ert arbete och relation med era massaleverantörer?	Identifiera typ av relation. Value build up model
Hur bidrar massaleverantörerna till er verksamhet?	Identifiera komponeneter i kundvärde. Value exchange model.
Vad efterfrågar ni från en massaleverantör?	Identifiera komponeneter i kundvärde. Value exchange model.
Vad associerar du med följande varumärken: Södra Cell, Företag B, Föreatg C och Företag D?	Undersöka uppfattningar av varumärke
Har era behov ändrats över tid och hur tror ni att de kommer förändras i framtiden?	Identifiera förändringar i kunders värdeuppfattning. Value dynamics model
Levererar leverantörerna på ett enhetligt sätt?	Identifiera dynamiken i kundvärde. Value dynamics model

Publications from
The Department of Forest Products,
SLU, Uppsala

Rapporter/Reports

1. Ingemarson, F. 2007. De skogliga tjänstemännens syn på arbetet i Gudruns spår. Institutionen för skogens produkter, SLU, Uppsala
2. Lönnstedt, L. 2007. *Financial analysis of the U.S. based forest industry*. Department of Forest Products, SLU, Uppsala
4. Stendahl, M. 2007. *Product development in the Swedish and Finnish wood industry.* Department of Forest Products, SLU, Uppsala
5. Nylund, J-E. & Ingemarson, F. 2007. *Forest tenure in Sweden – a historical perspective.* Department of Forest Products, SLU, Uppsala
6. Lönnstedt, L. 2008. *Forest industrial product companies – A comparison between Japan, Sweden and the U.S.* Department of Forest Products, SLU, Uppsala
7. Axelsson, R. 2008. Forest policy, continuous tree cover forest and uneven-aged forest management in Sweden's boreal forest. Licentiate thesis. Department of Forest Products, SLU, Uppsala
8. Johansson, K-E.V. & Nylund, J-E. 2008. NGO Policy Change in Relation to Donor Discourse. Department of Forest Products, SLU, Uppsala
9. Uetimane Junior, E. 2008. Anatomical and Drying Features of Lesser Known Wood Species from Mozambique. Licentiate thesis. Department of Forest Products, SLU, Uppsala
10. Eriksson, L., Gullberg, T. & Woxblom, L. 2008. Skogsbruksmetoder för privatskogs-brukaren. *Forest treatment methods for the private forest owner.* Institutionen för skogens produkter, SLU, Uppsala
11. Eriksson, L. 2008. Åtgärdsbeslut i privatskogsbruket. *Treatment decisions in privately owned forestry.* Institutionen för skogens produkter, SLU, Uppsala
12. Lönnstedt, L. 2009. *The Republic of South Africa's Forets Sector.* Department of Forest Products, SLU, Uppsala
13. Blicharska, M. 2009. *Planning processes for transport and ecological infrastructures in Poland – actors' attitudes and conflict.* Licentiate thesis. Department of Forest Products, SLU, Uppsala
14. Nylund, J-E. 2009. *Forestry legislation in Sweden*. Department of Forest Products, SLU, Uppsala
15. Björklund, L., Hesselman, J., Lundgren, C. & Nylinder, M. 2009. Jämförelser mellan metoder för fastvolymbestämning av stockar. Institutionen för skogens produkter, SLU, Uppsala
16. Nylund, J-E. 2010. *Swedish forest policy since 1990 – reforms and consequences*. Department of Forest Products, SLU, Uppsala
17. Eriksson, L., m.fl. 2011. Skog på jordbruksmark – erfarenheter från de senaste decennierna. Institutionen för skogens produkter, SLU, Uppsala
18. Larsson, F. 2011. Mätning av bränsleved – Fastvolym, torrhalt eller vägning? Institutionen för skogens produkter, SLU, Uppsala
19. Karlsson, R., Palm, J., Woxblom, L. & Johansson, J. 2011. Konkurrenskraftig kundanpassad affärsutveckling för lövträ - Metodik för samordnad affärs- och teknikutveckling inom leverantörskedjan för björkämnen. Institutionen för skogens produkter, SLU, Uppsala
20. Hannerz, M. & Bohlin, F., 2012. Markägares attityder till plantering av poppel, hybridasp och *Salix* som energigrödor – en enkätundersökning. Institutionen för skogens produkter, SLU, Uppsala
21. Nilsson, D., Nylinder, M., Fryk, H. & Nilsson, J. 2012. Mätning av grotflis. *Measuring of fuel chips.* Institutionen för skogens produkter, SLU, Uppsala
22. Sjöstedt, V. 2013. *The Role of Forests in Swedish Media Response to Climate Change – Frame analysis of media 1992-2010.* Licentiate thesis. Department of Forest Products, SLU, Uppsala
23. Nylinder, M. & Fryk, H. 2014. Mätning av delkvistad energived. Institutionen för skogens produkter, SLU, Uppsala

Examensarbeten/Master Thesis

1. Stangebye, J. 2007. Inventering och klassificering av kvarlämnad virkesvolym vid slutavverkning. *Inventory and classification of non-cut volumes at final cut operations.* Institutionen för skogens produkter, SLU, Uppsala
2. Rosenquist, B. 2007. Bidragsanalys av dimensioner och postningar – En studie vid Vida Alvesta. *Financial analysis of economic contribution from dimensions and sawing patterns – A study at Vida Alvesta.* Institutionen för skogens produkter, SLU, Uppsala
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4. Ståhl, G. 2007. Distribution och försäljning av kvalitetsfuru – En fallstudie. *Distribution and sales of high quality pine lumber – A case study*. Institutionen för skogens produkter, SLU, Uppsala
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6. Gustafsson, F. 2007. Postningsoptimering vid sönderdelning av fura vid Säters Ångsåg. *Saw pattern optimising for sawing Scots pine at Säters Ångsåg*. Institutionen för skogens produkter, SLU, Uppsala
7. Götherström, M. 2007. Följdeffekter av olika användningssätt för vedråvara – en ekonomisk studie. *Consequences of different ways to utilize raw wood – an economic study*. Institutionen för skogens produkter, SLU, Uppsala
8. Nashr, F. 2007. *Profiling the strategies of Swedish sawmilling firms.* Department of Forest Products, SLU, Uppsala
9. Högsborn, G. 2007. Sveriges producenter och leverantörer av limträ – En studie om deras marknader och kundrelationer. *Swedish producers and suppliers of glulam – A study about their markets and customer relations.* Institutionen för skogens produkter, SLU, Uppsala
10. Andersson, H. 2007. *Establishment of pulp and paper production in Russia – Assessment of obstacles.* Etablering av pappers- och massaproduktion i Ryssland – bedömning av möjliga hinder. Department of Forest Products, SLU, Uppsala
11. Persson, F. 2007. Exponering av trägolv och lister i butik och på mässor – En jämförande studie mellan sport- och bygghandeln. Institutionen för skogens produkter, SLU, Uppsala
12. Lindström, E. 2008. En studie av utvecklingen av drivningsnettot i skogsbruket. *A study of the net conversion contribution in forestry.* Institutionen för skogens produkter, SLU, Uppsala
13. Karlhager, J. 2008. *The Swedish market for wood briquettes – Production and market development.* Department of Forest Products, SLU, Uppsala
14. Höglund, J. 2008. *The Swedish fuel pellets industry: Production, market and standardization*. Den Svenska bränslepelletsindustrin: Produktion, marknad och standardisering. Department of Forest Products, SLU, Uppsala
15. Trulson, M. 2008. Värmebehandlat trä – att inhämta synpunkter i produktutvecklingens tidiga fas. *Heat-treated wood – to obtain opinions in the early phase of product development.* Institutionen för skogens produkter, SLU, Uppsala
16. Nordlund, J. 2008. Beräkning av optimal batchstorlek på gavelspikningslinjer hos Vida Packaging i Hestra. *Calculation of optimal batch size on cable drum flanges lines at Vida Packaging in Hestra*. Institutionen för skogens produkter, SLU, Uppsala
17. Norberg, D. & Gustafsson, E. 2008. *Organizational exposure to risk of unethical behaviour – In Eastern European timber purchasing organizations.* Department of Forest Products, SLU, Uppsala
18. Bäckman, J. 2008. Kundrelationer – mellan Setragroup AB och bygghandeln. *Customer Relationsship – between Setragroup AB and the DIY-sector.* Institutionen för skogens produkter, SLU, Uppsala
19. Richnau, G. 2008. *Landscape approach to implement sustainability policies? - value profiles of forest owner groups in the Helgeå river basin, South Sweden.* Department of Forest Products, SLU, Uppsala
20. Sokolov, S. 2008. *Financial analysis of the Russian forest product companies.* Department of Forest Products, SLU, Uppsala
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22. Johansson. N. 2008. *An analysis of the North American market for wood scanners.* En analys över den Nordamerikanska marknaden för träscanners. Department of Forest Products, SLU, Uppsala
23. Terzieva, E. 2008. *The Russian birch plywood industry – Production, market and future prospects*. Den ryska björkplywoodindustrin – Produktion, marknad och framtida utsikter. Department of Forest Products, SLU, Uppsala
24. Hellberg, L. 2008. Kvalitativ analys av Holmen Skogs internprissättningsmodell. *A qualitative analysis of Holmen Skogs transfer pricing method.* Institutionen för skogens produkter, SLU, Uppsala

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29. Barrstrand, T. 2009. Oberoende aktörer och Customer Perceptions of Value. *Independent actors and Customer Perception of Value.* Institutionen för skogens produkter, SLU, Uppsala
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31. Ekman, F. 2009. Stormskadornas ekonomiska konsekvenser – Hur ser försäkringsersättningsnivåerna ut inom familjeskogsbruket? *Storm damage's economic consequences – What are the levels of compensation for the family forestry?* Institutionen för skogens produkter, SLU, Uppsala
32. Larsson, F. 2009. Skogsmaskinföretagarnas kundrelationer, lönsamhet och produktivitet. *Customer relations, profitability and productivity from the forest contractors point of view.* Institutionen för skogens produkter, SLU, Uppsala
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35. Franksson, E. 2009. Framtidens rekrytering sker i dag – en studie av ingenjörsstudenters uppfattningar om Södra. *The recruitment of the future occurs today – A study of engineering students' perceptions of Södra.* Institutionen för skogens produkter, SLU, Uppsala
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46. Carlsson, R. 2009. *Fire impact in the wood quality and a fertilization experiment in Eucalyptus plantations in Guangxi, southern China.* Brandinverkan på vedkvaliteten och tillväxten i ett gödselexperiment i Guangxi, södra Kina. Department of Forest Products, SLU, Uppsala
47. Jerenius, O. 2010. Kundanalys av tryckpappersförbrukare i Finland. *Customer analysis of paper printers in Finland.* Institutionen för skogens produkter, SLU, Uppsala
48. Hansson, P. 2010. Orsaker till skillnaden mellan beräknad och inmätt volym grot. *Reasons for differences between calculated and scaled volumes of tops and branches.* Institutionen för skogens produkter, SLU, Uppsala

49. Eriksson, A. 2010. *Carbon Offset Management - Worth considering when investing for reforestation CDM.* Department of Forest Products, SLU, Uppsala
50. Fallgren, G. 2010. På vilka grunder valdes limträleverantören? – En studie om hur Setra bör utveckla sitt framtida erbjudande. *What was the reason for the choise of glulam deliverer? -A studie of proposed future offering of Setra.* Institutionen för skogens produkter, SLU, Uppsala
51. Ryno, O. 2010. Investeringskalkyl för förbättrat värdeutbyte av furu vid Krylbo sågverk. *Investment Calculation to Enhance the Value of Pine at Krylbo Sawmill*. Institutionen för skogens produkter, SLU, Uppsala
52. Nilsson, J. 2010. Marknadsundersökning av färdigkapade produkter. *Market investigation of pre cut lengths.* Institutionen för skogens produkter, SLU, Uppsala
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55. Bengtsson, W. 2010. Skogsfastighetsmarknaden, 2005-2009, i södra Sverige efter stormarna. *The market for private owned forest estates, 2005-2009, in the south of Sweden after the storms*. Institutionen för skogens produkter, SLU, Uppsala
56. Hansson, E. 2010. Metoder för att minska kapitalbindningen i Stora Enso Bioenergis terminallager. *Methods to reduce capital tied up in Stora Enso Bioenergy terminal stocks.* Institutionen för skogens produkter, SLU, Uppsala
57. Johansson, A. 2010. Skogsallmänningars syn på deras bankrelationer. *The commons view on their bank relations*. Institutionen för skogens produkter, SLU, Uppsala
58. Holst, M. 2010. Potential för ökad specialanpassning av trävaror till byggföretag – nya möjligheter för träleverantörer? *Potential for greater customization of the timber to the construction company – new opportunities for wood suppliers?* Institutionen för skogens produkter, SLU, Uppsala
59. Ranudd, P. 2010. Optimering av råvaruflöden för Setra. Optimizing Wood Supply for Setra. Institutionen för skogens produkter, SLU, Uppsala
60. Lindell, E. 2010. Rekreation och Natura 2000 – målkonflikter mellan besökare och naturvård i Stendörrens naturreservat. *Recreation in Natura 2000 protected areas – visitor and conservation conflicts*. Institutionen för skogens produkter, SLU, Uppsala
61. Coletti Pettersson, S. 2010. Konkurrentanalys för Setragroup AB, Skutskär. *Competitive analysis of Setragroup AB, Skutskär*. Institutionen för skogens produkter, SLU, Uppsala
62. Steiner, C. 2010. Kostnader vid investering i flisaggregat och tillverkning av pellets – En komparativ studie. *Expenses on investment in wood chipper and production of pellets – A comparative study.* Institutionen för skogens produkter, SLU, Uppsala
63. Bergström, G. 2010. Bygghandelns inköpsstrategi för träprodukter och framtida efterfrågan på produkter och tjänster. *Supply strategy for builders merchants and future demands for products and services.* Institutionen för skogens produkter, SLU, Uppsala
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70. Carlsson, G. 2011. Analysverktyget Stockluckan – fast eller rörlig postning? *Fixed or variable tuning in sawmills? – an analysis model.* Institutionen för skogens produkter, SLU, Uppsala
71. Olsson, A. 2011. Key Account Management – hur ett sågverksföretag kan hantera sina nyckelkunder. *Key Account Management – how a sawmill company can handle their key customers.* Institutionen för skogens produkter, SLU, Uppsala

72. Andersson, J. 2011. Investeringsbeslut för kraftvärmeproduktion i skogsindustrin. *Investment decisions for CHP production in The Swedish Forest Industry*. Institutionen för skogens produkter, SLU, Uppsala
73. Bexell, R. 2011. Hög fyllnadsgrad i timmerlagret – En fallstudie av Holmen Timbers sågverk i Braviken. *High filling degree in the timber yard – A case study of Holmen Timber´s sawmill in Braviken*. Institutionen för skogens produkter, SLU, Uppsala
74. Bohlin, M. 2011. Ekonomisk utvärdering av ett grantimmersortiment vid Bergkvist Insjön. *Economic evaluation of one spruce timber assortment at Bergkvist Insjön*. Institutionen för skogens produkter, SLU, Uppsala
75. Enqvist, I. 2011. Psykosocial arbetsmiljö och riskbedömning vid organisationsförändring på Stora Enso Skutskär. *Psychosocial work environment and risk assessment prior to organizational change at Stora Enso Skutskär.* Institutionen för skogens produkter, SLU, Uppsala
76. Nylinder, H. 2011. Design av produktkalkyl för vidareförädlade trävaror. *Product Calculation Design For Planed Wood Products*. Institutionen för skogens produkter, SLU, Uppsala
77. Holmström, K. 2011. Viskosmassa – framtid eller fluga. *Viscose pulp – fad or future*. Institutionen för skogens produkter, SLU, Uppsala
78. Holmgren, R. 2011. Norra Skogsägarnas position som trävaruleverantör – en marknadsstudie mot bygghandeln i Sverige och Norge. *Norra Skogsagarnas position as a wood-product supplier – A market investigation towards the builder-merchant segment in Sweden and Norway*. Institutionen för skogens produkter, SLU, Uppsala
79. Carlsson, A. 2011. Utvärdering och analys av drivningsentreprenörer utifrån offentlig ekonomisk information. *Evaluation and analysis of harvesting contractors on the basis of public financial information.* Institutionen för skogens produkter, SLU, Uppsala
80. Karlsson, A. 2011. Förutsättningar för betalningsgrundande skördarmätning hos Derome Skog AB. *Possibilities for using harvester measurement as a basis for payment at Derome Skog AB.* Institutionen för skogens produkter, SLU, Uppsala
81. Jonsson, M. 2011. Analys av flödesekonomi - Effektivitet och kostnadsutfall i Sveaskogs verksamhet med skogsbränsle. *Analysis of the Supply Chain Management - Efficiency and cost outcomes of the business of forest fuel in Sveaskog.* Institutionen för skogens produkter, SLU, Uppsala
82. Olsson, J. 2011. Svensk fartygsimport av fasta trädbaserade biobränslen – en explorativ studie. *Swedish import of solid wood-based biofuels – an exploratory study.* Institutionen för skogens produkter, SLU, Uppsala
83. Ols, C. 2011. *Retention of stumps on wet ground at stump-harvest and its effects on saproxylic insects.* Bevarande av stubbar vid stubbrytning på våt mark och dess inverkan på vedlevande insekter. Department of Forest Products, SLU, Uppsala
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86. Thorn-Andersen, B. 2012. Nuanskaffningskostnad för Jämtkrafts fjärrvärmeanläggningar. *Today-acquisition-cost for the district heating facilities of Jämtkraft.* Institutionen för skogens produkter, SLU, Uppsala
87. Norlin, A. 2012. Skogsägarföreningarnas utveckling efter krisen i slutet på 1970-talet – en analys av förändringar och trender. *The development of forest owners association's in Sweden after the crisis in the late 1970s – an analysis of changes and trends.* Institutionen för skogens produkter, SLU, Uppsala
88. Johansson, E. 2012. Skogsbränslebalansen i Mälardalsområdet – Kraftvärmeverkens syn på råvaruförsörjningen 2010-2015. *The balance of wood fuel in the region of Mälardalen – The CHP plants view of the raw material supply 2010-2015.* Institutionen för skogens produkter, SLU, Uppsala
89. Biruk, K. H. 2012. *The Contribution of Eucalyptus Woodlots to the Livelihoods of Small Scale Farmers in Tropical and Subtropical Countries with Special Reference to the Ethiopian Highlands.* Department of Forest Products, SLU, Uppsala
90. Otuba, M. 2012. *Alternative management regimes of Eucalyptus: Policy and sustainability issues of smallholder eucalyptus woodlots in the tropics and sub-tropics.* Department of Forest Products, SLU, Uppsala
91. Edgren, J. 2012. *Sawn softwood in Egypt – A market study.* En marknadsundersökning av den Egyptiska barrträmarknaden. Department of Forest Products, SLU, Uppsala
92. Kling, K. 2012. *Analysis of eucalyptus plantations on the Iberian Peninsula.* Department of Forest Products, SLU, Uppsala
93. Heikkinen, H. 2012. Mätning av sorteringsdiameter för talltimmer vid Kastets sågverk. *Measurement of sorting diameter for pine logs at Kastet Sawmill.* Institutionen för skogens produkter, SLU, Uppsala

94. Munthe-Kaas, O. S. 2012. Markedsanalyse av skogforsikring i Sverige og Finland. *Market analysis of forest insurance in Sweden and Finland.* Institutionen för skogens produkter, SLU, Uppsala
95. Dietrichson, J. 2012. Specialsortiment på den svenska rundvirkesmarknaden – En kartläggning av virkeshandel och -mätning. *Special assortments on the Swedish round wood market – A survey of wood trade and measuring*. Institutionen för skogens produkter, SLU, Uppsala
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